State of California
California Regional Water Quality Control Board
Santa Ana Region

March 18, 2010

ITEM: *7

Reissuance of Waste Discharge Requirements for the March Air Reserve Base (March ARB), Order No. R8-2010-0005, NPDES No. CA 0111007, Riverside County

BACKGROUND

On November 5, 2009, the first draft for reissuance of the March Air Reserve Base storm water permit was released for public comments. Based on comments received, a second draft of the tentative Order was released for public comments on December 21, 2009. A January 19, 2010 underline/strikeout version of the December 21, 2009 draft was subsequently released for consideration at the January 29, 2010 Board meeting. However, this item was postponed from the January 29, 2010 Board meeting at the request of the Discharger. The underline/strikeout version incorporated the requirements of the nutrient TMDL adopted for Lake Elsinore and Canyon Lake consistent with the draft municipal storm water permit for Riverside County. The municipal storm water permit for Riverside County was subsequently adopted on January 29, 2010. The tentative Order incorporates changes proposed in the January 19, 2010 underline/strikeout version and a few other non-substantive changes. At the March 18, 2010 Board meeting, the Regional Board will consider adoption of the tentative Order as proposed.

DISCUSSION:

See Attachment "F," the Fact Sheet.

RECOMMENDATION:

Adopt Order No. R8-2010-0005, NPDES No. CA 0111007, as presented.

COMMENT SOLICITATION:

Comments were solicited from the discharger and the following:

State Water Resources Control Board, Office of the Chief Counsel – David Rice
State Department of Water Resources, Glendale, Chuck King
State Department of Fish and Game, Ontario
California Department of Public Health, San Diego – Steven Williams
California Department of Public Health, Carpinteria – Jeff Stone
Orange County Water District - Nira Yamachika
Orange County Sanitation District – Robert Ghirelli
South Coast Air Quality Management District
City of Riverside – Jessica Chin

City of Moreno Valley – Kent Wegelin
City of Perris – Michael Morales
County of Riverside – Michael Shetler
Santa Ana River Dischargers Association – Ed Filadelfia
Santa Ana Watershed Project Authority – Celeste Cantu
Orange County Coastkeeper – Garry Brown
Lawyers for Clean Water c/o San Francisco Baykeeper
Elsinore Valley Municipal Water District – Ronald Young

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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR THE UNITED STATES AIR FORCE MARCH AIR RESERVE BASE STORM WATER RUNOFF

ORDER NO. R8-2010-0005
NPDES NO. CA 0111007

The following Discharger (Table 1) is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	United States Air Force
Name of Facility	March Air Reserve Base
Facility Address	610 Meyers Drive, Building 2403
	March ARB, CA 92518-2166
	County of Riverside
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a minor discharge.	

The discharge by the Discharger from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Locations

Discharge Point Serial Number (DPSN)	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
DPSN001	storm water runoff	33º, 52', 59" N	117º, 14', 40" W	Perris Valley Storm Drain
DPSN002	storm water runoff	33º, 53', 34" N	117º, 15', 09" W	Heacock Channel to Perris Valley Storm Drain
DPSN003	storm water runoff	33º, 51', 45" N	117º, 14', 38" W	Meyers Drive Channel to Heacock Channel
DPSN004	storm water runoff	33º, 54', 10" N	117º, 15', 24" W	Heacock Channel to Perris Valley Storm Drain

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	March 18, 2010
This Order shall become effective on:	March 18, 2010
This Order shall expire on:	March 18, 2015
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	180 days prior to the Order expiration date.

IT IS HEREBY ORDERED, that this Order supersedes Order No. R8-2004-0033 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with Section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on March 18, 2010.

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Gerard J. Thibeault, Executive Officer

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I. FACILITY INFORMATION

The discharge of storm water from the following facility is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	United States Air Force
Name of Facility	March Air Reserve Base
Facility Address	610 Meyer Drive
	March ARB, CA 92518-2166
	County of Riverside
Facility Contact	452MSG/CEV, (951) 655-5056
Mailing Address	SAME AS ABOVE
Type of Facility	Military Air Operation
Facility Design Flow	N/A

II. FINDINGS

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds:

A. Background

1. The United States Air Force Reserve Command (Discharger) owns and operates March Air Reserve Base (March ARB or Facility). Currently March ARB discharges storm water pursuant to Waste Discharge Requirements (WDRs) contained in Order No. R8-2004-0033, National Pollutant Discharge Elimination System (NPDES) Permit No. CA 0111007, as issued on September 17, 2004. Order No. R8-2004-0033 expired on September 17, 2009.

2. The Discharger filed a Report of Waste Discharge (ROWD) and applied for renewal of its WDRs/NPDES permit on February 3, 2009 for discharge of wastes to surface waters.

B. Purpose of Order

3. The purpose of this Order is to regulate the discharge of pollutants in storm water runoff from the March ARB.

C. Facility Description.

4. March ARB is a military air base located within 60 miles southeast of Los Angeles, California and is approximately 2,300-acres. The base is 69.4% impervious[1]. The

[1] Percent imperviousness from electronic communication with March ARB staff, 5/8/2009.

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facility was realigned from an active-duty Air Force Base to a reserve base on April 1, 1996. There are a number of occupants carrying out activities at March ARB. These occupants include, but are not limited to, the 452nd Air Mobility Wing (AMW), the California Air National Guard Air Reconnaissance Wing and the 144th Fighter Wing Detachment, the 63rd Regional Readiness Command and the Homeland Security/U.S. Customs Service. The 452nd AMW is headquartered at March ARB. The duties of the 452nd AMW are to maintain the capability to conduct air refueling operations, to transport materials and troops, to provide training in support of aviation activities and other mission objectives of the Department of Defense. The duties of the California Air National Guard are to safely execute global unmanned aerial system combat support with an additional duty to provide assistance to the State of California by responding to state emergencies upon the Governor's request. The 63rd Regional Readiness Command maintains combat-ready operational capabilities in the areas of vehicle and equipment maintenance and storage services in the cantonment area. The U.S. Customs Service provides aerial and ground traffic surveillance, interdiction of aircraft engaged in smuggling and assistance to other law enforcement agencies upon request.

5. The Discharger currently operates and maintains approximately 30 aircrafts at the facility. The aircraft, vehicle and facility maintenance operations require the on-site storage and use of fuels (jet fuel, gasoline, diesel), solvents, oils and other hazardous materials. These operations generate approximately an average of 162,000 pounds per year of hazardous wastes that are stored at the site prior to proper disposal.

D. Discharge Description.

6. The facility is located adjacent to the Escondido Freeway (Interstate 215) in Riverside County (Sections 12-15, 22-26, T3S, R4W, and Sections 18, 19, and 30, T3S, R3W, SBB&M). The location of the facility is shown on Attachment "A", which is hereby made a part of this Order. The facility occupies approximately 2,300 acres (the cantonment area). Areas that were formerly part of the Air Force Base and are outside the cantonment area are now under the jurisdiction of the Air Force Real Property Agency, the City of Moreno Valley and the March Joint Powers Authority.

7. Order No. R8-2004-0033, NPDES No. CA 0111007, was issued to the Discharger for the discharge of storm-induced runoff from the facility. Order No. R8-2004-0033 redefined the discharge locations consistent with the 1996 base realignment that changed the base boundaries. For purposes of this Order, four discharge points, as described in Finding 8, below, are considered as representative of the runoff from the facility.

8. Storm water runoff from the cantonment area includes drainage from administrative facilities and maintenance hangers, fuel distribution facilities, the runway, taxiway, and aircraft parking apron surfaces where aircraft use, fueling, and maintenance activities occur, and the vegetated areas adjacent to paved aircraft usage areas. There are four major storm water discharge points from March ARB, as indicated on

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Attachment "A" of the Order and described below. These discharge points were selected from others to provide adequate representation of the storm water runoff from the base drainage with emphasis on industrial areas and airport facilities. The map in Attachments "B" and "C" show the locations of the four discharge points.

Discharge Point Serial No. 001: The tributary area to Discharge Point Serial No. 001 includes runoff from the former base housing area (known as Arnold Heights) west of the Escondido Freeway (Interstate 215) and north of Van Buren Boulevard and portions of the right-of-way of Interstate 215. Runoff is conveyed to the east side of March ARB via a system of storm drain pipes and open channels that discharge to the Perris Valley Storm Drain. A large open basin functioning as an oil/water separator is located adjacent to the open channel just upstream of the discharge point to the Perris Valley Storm Drain. Under low flow conditions, a weir in the open channel diverts flow to the oil/water separator. A floating skimmer collects and pumps floating oil and grease into a holding tank for storage and proper disposal. Under high flow conditions, storm water flows over the weir and directly into the Perris Valley Storm Drain, which is tributary to the San Jacinto River, Reach 3. This Order requires implementation of effective BMPs to control non-storm water discharges, including monitoring. Discharge Point Serial No. 001 is located at latitude 33°52'59"N, longitude 117°14'40"W.

Discharge Point Serial No. 002: Discharges to Discharge Point Serial No. 002 originate from the balance of the aircraft parking apron not tributary to Discharge Point Serial No. 001, including the administrative facilities and maintenance hangars adjacent to Graeber Street and bounded by the Base Operations Tower. Storm water from Discharge Point Serial No. 002 joins with runoff originating from administrative, lodging and commercial facilities south of Meyer Drive and runoff originating from off-base area outside the base northern boundary. This flow is ultimately conveyed eastward via a system of pipes and open channels that merge with Heacock Channel in the vicinity of 8th Street and the base eastern boundary. Heacock Channel is tributary to the Perris Valley Storm Drain, which in turn is tributary to the San Jacinto River, Reach 3. Discharge Point Serial No. 002 is located at latitude 33°53'34"N, longitude 117°15'09"W.

Discharge Point Serial No. 003: Discharges to Discharge Point Serial No. 003 originate from the runway and taxiways, and the vegetated areas adjacent to the runway and taxiways. Runoff is conveyed generally by shallow swale, open channel or pipe culvert to the southeasterly corner of March ARB, where it enters a ditch adjacent to Heacock Avenue and eventually intersects the Oleander Avenue Channel. Storm water then flows south toward the intersection of Oleander Channel. It then turns eastward and discharges to the Perris Valley Storm Drain Lateral B that is tributary to the San Jacinto River, Reach 3. Discharge Point Serial No. 003 is located at latitude 33°51'45"N, longitude 117°14'38"W.

Discharge Point Serial No. 004: Storm water runoff tributary to Discharge Point Serial No. 004 originates from maintenance facilities, visitor lodging quarters, and administrative offices west of Travis Avenue and north of Graeber Street and Meyer

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Drive. Runoff is conveyed generally by pipe culvert to the open channel paralleling Meyer Drive. The open channel is tributary to the Heacock Channel, which is tributary to the Perris Valley Storm Drain, which in turn is tributary to the San Jacinto River, Reach 3. Discharge Point Serial No. 004 is located at latitude 33°54'10" N, longitude 117°15'24"W.

E. Legal Authorities/Regulatory Basis

9. This Order is issued pursuant to CWA Section 402(p) and implementing regulations adopted by the USEPA as codified in Code of Federal Regulations (CFR), Title 40, Parts 122, 123 and 124 (40 CFR 122, 123 and 124); the Porter Cologne Water Quality Control Act (Chapter 5.5, Division 7 of the California Water Code [CWC], commencing with Section 13370); all applicable provisions of statewide Water Quality Control Plans and Policies adopted the State Water Resources Control Board (State Board); the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan); the California Toxics Rule (CTR); and the CTR Implementation Plan. The storm water runoff from March ARB is considered as a point source discharge as per the CWA and this Order shall serve as a NPDES permit for the point source discharges from this facility. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to CWC Article 4, Chapter 4, Division 7 commencing with Section 13260.

10. On November 16, 1990, USEPA promulgated Phase I storm water regulations (40 CFR 122, 123 and 124) in compliance with CWA Section 402(p). These regulations require operators of facilities that discharge storm water associated with industrial activity to implement Best Available Technology (BAT) and Best Control Technology (BCT) to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. CWA Section 402(p)(3)(A) also requires that permits for discharges associated with industrial activity include requirements necessary to meet water quality standards.

11. The Regional Board regulates storm water runoff from industrial facilities either through individual NPDES permits or through the General Industrial Storm Water Permit, Order No. 97-03-DWQ, NPDES No. CAS000001, adopted by the State Board. The Discharger requested for renewal of its individual NPDES permit coverage for storm water runoff from March ARB by submitting a ROWD on February 3, 2009.

12. The references to 40 Code of Federal Regulations (CFR) 122, 123 and 412 below incorporate the revisions that are part of that final rule.

13. Effluent limitations and toxic and effluent standards established in CWA Sections 208(b), 301, 302, 303(d), 304, 306, 307 and 403, as amended, are applicable to storm water discharges and authorized non-storm water discharges as regulated by this Order.

F. Background and Rationale for Requirements

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15. The Regional Board developed the requirements in this Order based on information submitted as part of the permit renewal application (February 3, 2009 ROWD), through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E and G through J are also incorporated into this Order.

G. California Environmental Quality Act (CEQA)

16. Under CWC Section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code Sections 21100-21177. This action also involves the re-issuance of waste discharge requirements for existing facilities that discharge storm water and as such, is exempt from the provisions of CEQA in that the activity is exempt pursuant to Title 14 of the California Code of Regulations Section 15301.

H. Technology-based Effluent Limitations

17. CWA Section 301(b) and USEPA permit regulations contained in 40 CFR 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 CFR 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

I. Water Quality-Based Effluent Limitations (see Paragraph P, below)

J. Water Quality Control Plans

18. A revised Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) was adopted by the Regional Board and became effective on January 24, 1995. The Basin Plan was updated most recently in February 2008.

    Storm water flows from Discharge Point Serial Numbers 001-004 are ultimately discharged to the San Jacinto River via the municipal separate storm sewer systems (MS4s) of the County of Riverside. The Basin Plan designates water quality standards that are set forth in this Order. Beneficial uses applicable to the San Jacinto River are as follows:

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Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
Discharge Point Serial Number (DPSN) 001, 002, 003 & 004	Perris North Groundwater Management Zone	Existing: municipal and domestic supply, agricultural supply, industrial process supply and industrial service supply.
DPSN 001, 002, 003 & 004	Perris South Groundwater Management Zone	Existing: municipal and domestic supply and agricultural supply.
DPSN 001, 002, 003 & 004	Reach 3 – San Jacinto River	Intermittent: agricultural supply, groundwater recharge, warm freshwater habitat, water contact recreation, non-contact water recreation and wildlife habitat.
DPSN 001, 002, 003 & 004	Reach 2 – San Jacinto River, Canyon Lake	Existing: municipal and domestic supply, agricultural supply, groundwater recharge, warm freshwater habitat, water contact recreation, non-contact water recreation, and wildlife habitat.

19. More recently, the Basin Plan was amended significantly to incorporate revised boundaries for groundwater subbasins, now termed "management zones", new nitrate-nitrogen and TDS[2] objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. This Basin Plan amendment was adopted by the Regional Board on January 22, 2004. The State Board and the Office of Administrative Law (OAL) approved the amendment on September 30, 2004 and December 23, 2004, respectively. The USEPA approved the surface water standards and related provisions of the amendment on June 20, 2007. TDS and TIN[3] limitations in Table 4-1[4] of the Basin Plan are specified in this Order for Discharger's dry weather discharges.

K. National Toxics Rule (NTR) and California Toxics Rule (CTR)

20. USEPA adopted the NTR on December 22, 1992 and later amended it on May 4, 1995 and November 9, 1999. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

[2] TDS=total dissolved solids
[3] TIN=total inorganic nitrogen
[4] http://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/chapter4.pdf

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L. State Implementation Policy

21. On March 2, 2000, the State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements in this Order implement the SIP.

M. Compliance Schedules and Interim Requirements for Compliance with CTR (Not Applicable)

N. Alaska Rule

22. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 CFR 131.21; 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

O. Stringency of Requirements for Individual Pollutants (Not Applicable)

P. Water Quality-Based Effluent Limitations (WQBELs)

23. CWA Section 301(b) and 40 CFR 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA Section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in Section 122.44(d)(1)(vi).

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24. WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plans were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Q. Antidegradation Policy

25. 40 CFR 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Board established California's antidegradation policy in State Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Board Resolution No. 68-16.

R. Anti-Backsliding Requirements

26. CWA Sections 402(o)(2) and 303(d)(4) and 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

S. Endangered Species Act

27. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code Sections 2050 to 2097) or the Federal Endangered Species Act (16 USCA Sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

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T. Monitoring and Reporting

28. 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC Sections 13267 and 13383 authorize the Regional Board to require technical and monitoring reports. The Monitoring and Reporting Program, included as Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and State requirements.

U. Standard and Special Provisions

29. Standard provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR 122.42. The Regional Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

V. Pollution Prevention Plan

30. This Order requires the continued implementation of a storm water pollution prevention plan (SWPPP) in order to carry out the purposes and intent of the CWA.

W. Provisions and Requirements Implementing State Law (Not applicable)

X. Total Maximum Daily Loads (TMDLs)

31. On December 20, 2004, the Regional Board adopted Resolution No. R8-2004-0037, amending the Basin Plan to incorporate nutrient total maximum daily loads (TMDLs) for Lake Elsinore and Canyon Lake. These TMDLs were approved by the State Board on May 19, 2005, by the Office of Administrative Law on July 26, 2005 and by the USEPA on September 30, 2005. The approved TMDLs for Lake Elsinore and Canyon Lake include total phosphorus and total nitrogen wasteload allocations (WLAs) for urban discharges, including discharges from March ARB.

32. Implementing TMDL requirements in this Order will assure that urban discharges to Lake Elsinore and Canyon Lake and their tributaries are authorized in accordance with requirements developed by the Regional Board and stakeholders using sound scientific methods and practices and adopted after an extensive public participation process, including scientific peer review. The WLAs specified in the Elsinore/Canyon Lake TMDLs are the basis for the nutrient limits and compliance schedules that are specified in this Order. The TMDL establishes schedules for compliance with the WLAs.

33. The responsible agencies and dischargers in the Lake Elsinore/Canyon Lake watershed have formed a Lake Elsinore and Canyon Lake TMDL Task Force (TMDL

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Task Force). March ARB is a member of the TMDL Task Force. The TMDL Task Force members are working jointly to implement requirements of the TMDLs. However, if the TMDL Task Force does not comply with the TMDL requirements by the due dates in a collective manner, then each member is responsible for implementation of the TMDL tasks individually. The Implementation Plan[5] identifies TMDL Tasks. In each case, the approved plans and schedules are required to be implemented upon Regional Board approval. The TMDL Task Force has completed most of the tasks and the Regional Board has approved all requisite plans/schedules. On November 30, 2007, the Regional Board adopted Resolution No. R8-2007-0083 that approved the nutrient TMDL Task Force[6] plans and schedules. That includes the schedules for both the Lake Elsinore In-lake Sediment Nutrient Reduction Strategy (Table 8) and the Lake Elsinore/Canyon Lake Model Update Plan (Table 9).

34. Task 4 required the stakeholders to develop and implement a monitoring program. On March 3, 2006, the Regional Board adopted Resolution No. R8-2006-0031, approving the Watershed-wide and In-lake nutrient TMDLs monitoring program. The monitoring program was submitted by the Lake Elsinore and San Jacinto Watersheds Authority (LESJWA) on behalf of the dischargers named in the TMDLs. Many of these dischargers, including March ARB, subsequently formed the TMDL Task Force. This Order requires the Discharger to continue to implement the approved monitoring program. If the Task Force fails to implement the monitoring program in a timely and effective manner, as determined by the Executive Officer, then March ARB is required to implement the approved monitoring program.

35. The Discharger is required, in collaboration with other TMDL Task Force members, or individually, to comply with the WLAs specified in Table 6, below.

Table 6 Wasteload Allocations [7, 8]

	Total Phosphorus Load Allocation (kg/yr)	Total Nitrogen Load Allocation (kg/yr)
Lake Elsinore Urban Wasteload Allocation	124	349

[5] www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/docs/elsinore/implementation/Implementation_Tasks_status_tabnle_4-14-09.pdf.

[6] The TMDL Task Force members are working jointly to implement requirements of the Lake Elsinore and Canyon Lake Nutrient TMDLs. TMDL Task Force members including the following agencies/parties: the US Forest Service, the US Air Force (March Air Reserve Base) March Joint Powers Authority, California Dept. of Transportation (CalTrans), California Dept. of Fish & Game, The County of Riverside, the Riverside County Flood Control and Water Conservation District, Western Riverside County Agricultural Coalition, and the Cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont.

7 Urban WLA applies to all urban discharges including March ARB

8 The WLA for Canyon Lake apply to those land uses located upstream of Canyon Lake.

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Canyon Lake Urban Wasteload Allocation	306	3,974

36. The Discharger is required to comply with other applicable provisions of the approved TMDLs.

37. March ARB shall provide, as needed, the TMDL Task Force, with water quality data collected pursuant to the Monitoring and Reporting Program to assist in TMDL model development, WLA refinement for the entire March ARB facility and TMDL compliance determination.

38. Interim compliance (compliance determination prior to the final WLA compliance dates) determination with the WLAs in the TMDLs will be based on the Dischargers' progress towards implementing the various TMDL Implementation Plan tasks as per the plans approved by the Regional Board. The TMDL Taskforce is required to develop a Comprehensive Nutrient Reduction Plan (CNRP) designed to achieve compliance with the WLAs by the final compliance date for approval of the Regional Board. In the absence of an approved CNRP, the WLAs specified in the approved Canyon Lake/Lake Elsinore Nutrient TMDL will constitute the final numeric water quality-based effluent limits.

39. This Order may be reopened to incorporate requirements of any other TMDLs that are approved during the term of this Order, including specification of an individual WLA for March ARB.

Y. Notification of Interested Parties

40. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.

Z. Consideration of Public Comment

41. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

IT IS HEREBY ORDERED that United States Air Force, March Air Reserve Base, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

III. Discharge Prohibitions

A. The discharge of waste materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances or wastes other than those authorized by this Order to

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the San Jacinto River or other waters of the State is prohibited.

B. The discharge of any substance in concentrations toxic to animal or plant life is prohibited.

C. The discharge of designated waste or hazardous waste, as defined in CWC Section 13173 and Title 23 of the California Code of Regulations (CCR) Section 2521(a), respectively, is prohibited.

D. Discharges of liquids or materials, other than storm water and authorized non-storm water discharges either directly or indirectly into U.S. waters are prohibited.

E. Storm water and authorized non-storm water discharges shall not contain pollutants that cause or threaten to cause pollution, contamination or nuisance as defined in CWC Section 13050**.**

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. The discharge of wastes at Discharge Point Serials Number 001, 002, 003 and 004 containing constituent concentrations in excess of the following limits is prohibited:

Table 7 Effluent Limitations

Constituents	Maximum Daily Concentration Limit[9] (mg/l)
Total Suspended Solids	75
Oil and Grease	15
Methylene Blue Active Substances	0.5

2. The pH of the discharge shall be at all times within the range of 6.5 and 8.5 pH units.

3. The discharge shall not contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

4. The effluent shall be deemed to cause acute toxicity when the toxicity test of 100% effluent as required in Monitoring and Reporting Program No. R8-2010-0005, results in failure of the test as determined using the pass or fail test protocol specified in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (EPA-821-R-02-012), Fifth Edition, October 2002.

5. Table 4-1 of the Basin Plan incorporates TDS/TIN objectives for groundwater and

9 The “maximum daily” concentration is defined as the measurement made on any single grab sample or composite sample.

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surface waters within the Santa Ana Region. Permittees discharging to those Receiving Waters shall ensure compliance with the following for dry weather conditions:

i. For discharges to surface waters where groundwater will not be affected by the discharge, the maximum daily concentration (mg/L) of TDS and/or TIN of the effluent shall not exceed the Water Quality Objectives for the Receiving Water where the effluent is discharged, as specified in Table 4-1 of the Basin Plan[10].

ii. For discharges to surface waters where the groundwater will be affected by the discharge, the TDS and/or TIN concentrations of the effluent shall not exceed the Water Quality Objectives for the surface water where the effluent is discharged and the affected groundwater management zone, as specified in Table 4-1 of the Basin Plan. The more restrictive Water Quality Objectives shall govern. However, treated effluent exceeding the groundwater management zone Water Quality Objectives may be returned to the same management zone from which it was extracted without reduction of the TDS or TIN concentrations so long as the concentrations of those constituents are no greater than when the groundwater was first extracted. Incidental increases in the TDS and TIN concentrations (such as may occur during air stripping) of treated effluent will not be considered increases for the purposes of determining compliance with this discharge specification.

B. Best Management Practices (BMPs) and Pollution Prevention

1. The Discharger must implement BMPs and other control measures consistent with the BAT/BCT[11] standards to meet the effluent limitations and discharge prohibitions.

2. Within one year of adoption of this Order, the Discharger shall review and update its Storm Water Pollution Prevention Plan (SWPPP) to be in compliance with this Order. Thereafter, the Discharger shall update, as appropriate, and continue to implement its SWPPP.

3. The Discharger shall implement source-specific operational BMPs and structural source control BMPs, as applicable, as specified in Attachment J. Additional BMPs may be necessary for new development and significant redevelopment projects if existing control measures are found to be ineffective by the Discharger or the Executive Officer.

4. The Discharger shall evaluate the current BMPs to see if they are properly implemented. Every potential source of pollutant should have a corresponding BMP(s) to reduce the potential pollutant.

5. The Discharger shall determine if the designated BMPs are appropriate and effective

[10] Resolution No. R8-2004-0001

[11] BAT - Best Available Technology; BCT - Best Conventional Technology.

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to reduce the pollutants.

6. If the Discharger is unable to determine sources of all pollutants in the discharges from its facility, it shall determine if there are pollutants that are coming from offsite sources and conduct further monitoring to determine their source(s).

7. The SWPPP, including all BMPs that are being implemented, will serve as the equivalent of technology-based effluent limitations (TBELs), in the absence of established effluent limit guidelines, in order to carry out the purposes and intent of the CWA.

C. Land Discharge Specifications (Not applicable)

D. Reclamation Specifications (Not Applicable)

E. Wasteload Allocations (WLAs) and TMDLs

1. The discharge of urban runoff from the March ARB facility shall not cause or contribute to a violation of the overall WLAs for urban runoff as per the approved TMDLs. The Discharger shall comply with the following WLAs, expressed as interim and final water quality based effluent limits (WQBELS), individually or in collaboration with other TMDL Task Force members.

Interim WQBELS:

a. *Lake Elsinore In-Lake Sediment Nutrient Reduction Plan:* Pursuant to Resolution No. R8-2007-0083, or as amended by subsequent adopted Regional Board resolutions, the Discharger, either individually or in collaboration with the TMDL Task Force members, shall continue to implement the approved strategy for reducing in-lake sediment nutrient loads as summarized in Table 8, below:

Table 8 - Lake Elsinore In-lake Sediment Nutrient Reduction Strategy

Lake Elsinore In-lake Sediment Reduction Strategy Task	**Due Date**
Submit Phase 2 Alternatives	December 31, 2010*
Submit O&M Agreement for Fishery Management Program	December 31, 2010*
Submit O&M Agreement for Aeration and Mixing Systems	December 31, 2010*
Submit Phase 2 Projects Plans	June 30, 2011*
Complete Phase 2 Project Implementation	December 31, 2014
Implement in-lake and watershed monitoring programs	Annual reports due August 31 every year.

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*Within 60 days of receipt of comments from Regional Board staff, Permittees shall submit a final revised plan that will be acceptable for adoption by the Regional Board, unless otherwise directed by the Executive Officer..

b. Lake Elsinore/Canyon Lake (LE/CL) Model Update Plan: Pursuant to Resolution No. R8-2007-0083, or as amended by subsequent adopted Regional Board resolutions, the Discharger, either individually or in collaboration with the TMDL Task Force members, shall continue to implement the Model Update Plan as per the schedule summarized in Table 9 below: The model shall specify how the Permittees will determine compliance with the WLAs.

Table 9 - Lake Elsinore/Canyon Lake Model Update Plan

Model Update Task	Due Date
Linkage Analysis Study	August 31, 2010
Watershed Source Loading Study	August 31, 2010
Model Evaluation	December 31, 2010
Construct/Calibrate Model	June 30, 2011
Conduct Model Scenarios	August 31, 2011
Model Update Final Report	November 30, 2011

Final WQBELs (Effective December 31, 2020)

c. To achieve compliance with TMDL WLAs as per the Implementation Plans, the Discharger, either individually or collaboration with the TMDL Task Force members, shall submit a Comprehensive Nutrient Reduction Plan (CNRP) by December 31, 2011 describing in detail, the specific actions that have been taken or will be taken to achieve compliance with the urban WLA by December 31, 2020. The CNRP must include the following:

i. Evaluation of the effectiveness of BMPs and other control actions implemented; This evaluation shall include the following:

(a) The specific ordinance(s) adopted or proposed for adoption to reduce the concentration of nutrient in urban sources.

(b) The specific BMPs implemented to reduce the concentration of urban nutrient sources and the water quality improvements expected to result from these BMPs.

(c) The specific inspection criteria used to identify and manage the urban sources most likely causing exceedances of water quality objectives for nutrients.

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(d) The specific regional treatment facilities and the locations where such facilities will be built to reduce the concentration of nutrient discharged from urban sources and the expected water quality improvements to result when the facilities are complete.

ii. Proposed method for evaluating progress towards compliance with the nutrient WLA allocation for Urban Runoff. The progress evaluation shall include:

(a) The scientific and technical documentation used to conclude that the CNRP, once fully implemented, is expected to achieve compliance with the urban waste load allocation for nutrient by December 31, 2020.

(b) A detailed schedule for implementing the CNRP. The schedule must identify discrete milestones decision points and alternative analyses necessary to assess satisfactory progress toward meeting the urban waste load allocations for nutrient by December 31, 2020. The schedule must also indicate which agency or agencies are responsible for meeting each milestone.

(c) The specific metric(s) that will be established to demonstrate the effectiveness of the CNRP and acceptable progress toward meeting the urban waste load allocations for nutrient by December 31, 2020.

(d) MARB's SWPPP shall be revised consistent with the CNRP no more than 180 days after the CNRP is approved by the Regional Board.

(e) Detailed descriptions of any additional BMPs planned, and the time required to implement those BMPs, in the event that data from the watershed-wide water quality monitoring program indicate that water quality objectives for nutrient are still being exceeded after the CNRP is fully implemented.

d. The draft CNRP must be submitted to the Regional Board by December 31, 2011. The Discharger submit the plan individually, jointly or through a collaborative effort with other urban dischargers such as the existing LE/CLTMDL Task Force. Regional Board staff will review the document and recommend necessary revisions no more than 90 days after receiving the draft plan. The Discharger or LE/CL Permittees must submit the final version of the plan no more than 90 days after receiving the comments from Regional Board staff. The Regional Board will schedule a public hearing to consider approving the CNRP, as a final water quality-based effluent limitation for the Nutrient WLA, no more than 90 days after the final plan is submitted by the LE/CL Permittees. In approving the CNRP as the final WQBELs, the Regional Board shall make a finding that the CNRP, when fully implemented, shall achieve the urban WLA for nutrient by December 31, 2020; and,

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e. Once approved by the Regional Board, the CNRP shall be incorporated into this Order as the final WQBELs for LE/CL Nutrient TMDL. Based on BMP effectiveness analysis, the CNRP shall be updated, if necessary. The updated CNRP shall be implemented upon approval by the Regional Board.

f. Compliance with the WLA is based on a 10-year running average. Hence, data collection consistent with the approved Phase 2 LE/CL TMDL monitoring program required in the Monitoring and Reporting Program must commence by December 31, 2010[12].

g. Submit a summary of all relevant data from water quality monitoring programs in the annual report . This will include and evaluation of compliance with the LE/CL TMDL by reporting the effectiveness of the control measures implemented in the watershed to control nutrient inputs into the lake from Urban Runoff pursuant to Regional Board Resolution No. R8-2006-0031 and R8-2007-0083, or as amended by subsequent Regional Board adopted resolutions.

h. Revise MARB's Storm Water Pollution Prevention Plan as necessary to implement the plans submitted pursuant to paragraphs a, through e of this section and summarize all such revisions in the annual report.

i. The draft CNRP must be submitted to the Regional Board by December 31, 2011. The LE/CL Permittees may submit the plan individually, jointly or through a collaborative effort with other urban dischargers such as the existing LE/CLTMDL Task Force. Regional Board staff will review the document and recommend necessary revisions no more than 90 days after receiving the draft plan. The LE/CL Permittees must submit the final version of the plan no more than 90 days after receiving the comments from Regional Board staff. The Regional Board will schedule a public hearing to consider approving the CNRP, as a final water quality-based effluent limitation for the Nutrient WLA, no more than 90 days after the final plan is submitted by the LE/CL Permittees. In approving the CNRP as the final WQBELs, the Regional Board shall make a finding that the CNRP, when fully implemented, shall achieve the urban WLA for nutrient by December 31, 2020.

j. In the event that the Regional Board has not adopted alternative final WQBELs, in accordance with Section IV.E.1.c.iii, then the urban WLAs specified in Tables 10 and 11, below, shall automatically become the final numeric water quality-based effluent limits for the LE/CL Permittees, including MARB, to be achieved no later than December 31, 2020. These final effluent limits shall be considered effective for enforcement purposes on January 1, 2021.

[12] Resolution No. R8-2004-0037 requires initiation of the Phase 2 watershed-wide Wet Season monitoring upon completion of the Phase 1 in-lake monitoring program. Regional Board staff is currently in discussion with LE/CL TMDL Task Force regarding this transition and are expected to identify reductions in Phase 1 monitoring program that will offset the costs of the enhanced Phase 2 program.

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Table 10 - Canyon Lake Nitrogen and Phosphorus Waste Load and Load Allocations[a]

Canyon Lake Nutrient TMDL	Final Total Phosphorus Waste Load Allocation (kg/yr)[b, c]	Final TN Waste Load Allocation (kg/yr)[b, c]
Urban	306 (675 lbs/yr)	3,974 (8763 lbs/yr)
Septic systems	139 (306 lbs/yr)	4,850 (10692 lbs/yr)

[a] The WLAs for Canyon Lake apply to those land uses located upstream of Canyon Lake.
[b] Final WLA compliance to be achieved by December 31, 2020.
[c] TMDL and WLA specified as 10-year running average.

Table 11 - Lake Elsinore Nitrogen and Phosphorus Waste Load and Load Allocations[a]

Lake Elsinore Nutrient TMDL	Final Total Phosphorus Waste Load Allocation (kg/yr)[b, c]	Final TN Waste Load Allocation (kg/yr)[c, d]
Urban	124 (273.3 lbs/yr)	349 (769.4 lbs/yr)
Septic systems	69 (152 lbs/yr)	608 (1340 lbs/yr)

[a] The Lake Elsinore WLAs allocations for septic systems only apply to those land uses located downstream of Canyon Lake.
[b] Final compliance to be achieved by December 31, 2020.
[c] TMDL and WLA specified as 10-year running average.
[d] WLA for supplemental water should be met as a 5 year running average by December 31, 2020.
[e] WLA for Canyon Lake overflows

k. MARB and the TMDL Task Force members may demonstrate compliance with the WQBELs using either of the following two methods:

i. Directly, using relevant monitoring data and approved modeling procedures to estimate actual nitrogen and phosphorus loads being discharged to the lakes, or

ii. Indirectly, using water quality monitoring data and other biological metrics approved by the Regional Board, to show water quality standards are being consistently attained (as measured by the response targets identified in the LE/CL TMDL).

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V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

1. The discharge shall not cause the following conditions to exist in the receiving waters:

   a. Floating, suspended or deposited macroscopic particulate matter or foam;

   b. Alteration of turbidity, or apparent color beyond natural background levels;

   c. Visible, floating, suspended or deposited materials;

   d. Bottom deposits or aquatic growths; or,

   e. Toxic or other deleterious substances to be present in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge shall not cause nuisance or adversely affect beneficial uses of the receiving water.

3. The discharge shall not cause the following limitations to be exceeded in the receiving waters at any place within the waterbody of the receiving waters:

   a. The pH shall not be depressed below 6.5 or raised above 8.5, or cause to vary from normal ambient pH levels by more than 0.5 units;

   b. Dissolved oxygen shall not be less than 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation;

4. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or the State Board. If more stringent applicable water quality standards are promulgated or approved pursuant to CWA Section 303, or amendments thereto, the Regional Board will revise or modify this Order in accordance with such standards.

5. The discharge shall not cause the following to be present in receiving waters:

   a. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses;

   b. Chemical substances in amounts that adversely affect any designated beneficial use;

   c. Oils, greases, waxes, or other materials in concentrations that result in a visible

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film or coating on the surface of the receiving water or on objects in the water;

d. Suspended or settleable materials in concentrations that cause nuisance or adversely affect beneficial uses;

e. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses; or,

f. Substances that result in increases of BOD_5 20°C that adversely affect beneficial uses.

6. The discharge shall not alter the color, create a visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters.

7. The discharge shall not degrade surface water communities and population including vertebrate, invertebrate, and plant species.

8. The discharge shall not damage, discolor, or cause formation of sludge deposits in drainage ways or overload their capacities.

9. The discharge shall not cause problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

10. The Discharger shall notify the Executive Officer in writing at least 6 months prior to planned discharge of any chemical, other than chlorine or other product previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:

    a. Name and general composition of the chemical,

    b. Frequency of use,

    c. Quantities to be used,

    d. Proposed discharge concentrations, and

    e. USEPA registration number, if applicable.

11. No discharge of such chemical shall be made prior to the Executive Officer's written approval.

12. The Executive Officer and USEPA shall be notified immediately by telephone or by email of the presence of adverse conditions in the receiving waters or on beaches and shores as a result of wastes discharged. Written confirmation shall follow as soon as possible but not later than five working days after occurrence.

13. The Discharger shall file a ROWD with the Regional Board at least 180 days before

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making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following:

a. The addition of a new wastewater that results in a change in the character or volume of the waste;

b. Significantly changing the disposal method or location; and/or

c. Significantly changing the methods of treatment.

B. Groundwater Limitations (Not Applicable)

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all applicable Standard Provisions included in Attachment D of this Order.

2. The Discharger shall comply with the Monitoring and Reporting Program (MRP), and future revisions thereto, in Attachment E of this Order.

3. The Discharger shall comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other courses under their jurisdiction.

4. The Discharger shall comply with all federal, state, county and local laws and regulations pertaining to the discharge of wastes from the facility.

5. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from liabilities under federal, state, or local laws, nor guarantee the Discharger a capacity right in the receiving waters.

6. An authorization to discharge wastes under this Order is not transferable to any person without written authorization from the Executive Officer.

7. The Discharger shall comply with all requirements of this Order.

8. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

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B. Special Provisions

1. Reopener Provisions

a. If more stringent applicable water quality standards are promulgated or approved pursuant to CWA Section 303, or amendments thereto, the Regional Board will revise and modify this Order in accordance with such standards.

b. This Order may be reopened to address any changes in state or federal plans, policies or regulations that would affect the quality requirements for the discharges, including any approved TMDLs.

2. Special Studies, Technical Reports and Additional Monitoring Requirements (Not Applicable)

VII. COMPLIANCE DETERMINATION

1. Compliance determination with the terms of this Order shall be based on the following:

   a. Periodic inspections by Regional Board staff;

   b. Evaluation of the semi-annual report submitted according to the Monitoring and Reporting Program (Attachment E); and

   c. Any other information deemed necessary by the Executive Officer.

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ATTACHMENT A – DEFINITIONS

Basin Plan – Water Quality Control Plan developed by the Regional Board for the Santa Ana River Watershed.

BAT (Best Available Technology) – Technology-based standard established by Congress in CWA Section 402(p)(3)(A) for industrial dischargers of storm water. Technology-based standards establish the level of Pollutant reductions that dischargers must achieve, typically by treatment or by a combination of Source Controls and Structural BMPs. BAT generally emphasizes treatment methods first and pollution prevention and source control BMPs secondarily. The best economically achievable technology that will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants is determined in accordance with regulations issued by the USEPA Administrator. Factors relating to the assessment of BAT shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the permitting authority deems appropriate.

BCT (Best Conventional Technology) – Treatment techniques, processes and procedure innovations, and operating methods that eliminate or reduce chemical, physical, and biological Pollutant constituents.

Beneficial Use – Uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals. “Beneficial Uses” that may be protected include, but are not limited to: domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing Beneficial Uses are those that were attained in the surface or ground water on or after November 28, 1975; and potential Beneficial Uses are those that would probably develop in future years through the implementation of various control measures. “Beneficial Uses” are equivalent to “Designated Uses” under federal law. [California Water Code Section 13050(f)] Beneficial Uses for the Receiving Waters are identified in the Basin Plan.

BMP (Best Management Practices) – Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the U.S. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Effluent Limitation Guidelines (ELGs) are national standards, based on the

performance of treatment and control technologies, for wastewater discharges to surface waters and municipal sewage treatment plants.

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in Title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

MS4 – **[Municipal Separate Storm Sewer System]** – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, natural drainage features or channels, modified natural channels, man-made channels, or storm drains): (i) Owned or operated by a state, city town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to Waters of the U.S.; (ii) Designated or used for collecting of conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the POTW as defined at 40 CFR 122.2. Historic and current developments make use of natural drainage patterns and features as conveyances for Urban Runoff. Urban streams used in this manner are part of the MS4 regardless of whether they are natural, man-made, or partially modified features. In these cases, the urban stream is both an MS4 and a receiving water.

Non-storm Water – All discharges to and from a MS4 that do not originate from precipitation events (i.e., all discharges to a MS4 other than storm water). Non-storm Water includes Illicit Discharges, non-prohibited discharges and NPDES permitted discharges.

Not Detected (ND) are those sample results less than the laboratory's MDL.

Point Source – Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged.

Pollutant – Broadly defined as any agent that may cause or contribute to the degradation of water quality such that a condition of Pollution or Contamination is created or aggravated.

Pollution – As defined in the Porter-Cologne Water Quality Control Act, Pollution is the alteration of the quality of the Waters of the U.S. by Waste, to a degree that unreasonably affects either of the following: A) the waters for Beneficial Uses (i.e., when the Water Quality Objectives have been violated); or B) facilities that serve these Beneficial Uses. Pollution may include Contamination.

Pollution Prevention –Defined as practices and processes that reduce or eliminate the generation of Pollutants, in contrast to source control, pollution control, treatment, or disposal.

Receiving Water Limitations – Requirements included in the Orders issued by the Regional Boards to assure that the regulated discharges do not violate Water Quality Standards established in the Basin Plan at the point of discharge to Waters of the U.S. Receiving Water Limitations are used to implement the requirement of CWA section 301(b)(1)(C) that NPDES permits must include any more stringent limitations necessary to meet Water Quality Standards.

Region – The portion of the Santa Ana River watershed within Riverside County.

Regional Board – California Regional Water Quality Control Board, Santa Ana Region.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order (See Attachment G) correspond to approved analytical methods for reporting a sample result. The MLs are selected by the Regional Water Board either from Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) in accordance with Section 2.4.2 of the SIP or established in accordance with Section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

ROWD [Report of Waste Discharge] – Application for issuance or re-issuance of WDRs.

Source Control BMPs – In general, activities or programs to educate the public or provide low cost non-physical solutions, as well as facility design or practices aimed to limit the contact between Pollutant sources and storm water or authorized Non-Storm Water. Examples include: activity schedules, prohibitions of practices, street sweeping, facility maintenance, detection and elimination of IC/IDs, and other non-structural measures. Facility design (structural) examples include providing attached lids to trash containers, canopies for fueling islands, secondary containment, or roof or awning over material and trash storage areas to prevent direct contact between water and Pollutants.

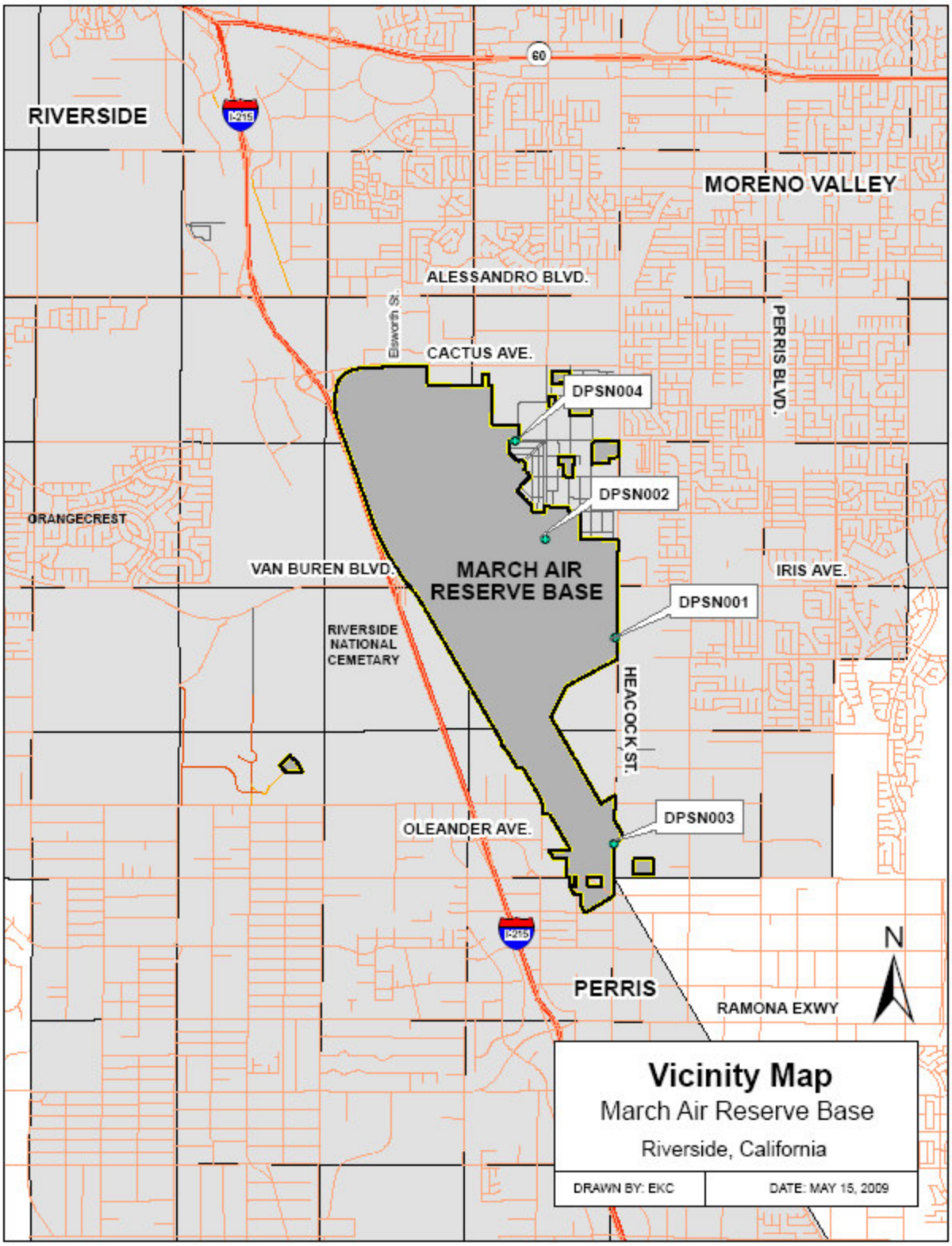
Storm Water – Storm water runoff and snow melt runoff from urban, open space, and agricultural areas consisting only of those discharges that originate from precipitation events. Storm water is that portion of precipitation that flows across a surface to the MS4 or receiving waters. Examples of this phenomenon include: the water that flows off a building's roof when it rains (runoff from an impervious surface); the water that flows into streams when snow on the ground begins to melt (runoff from a semi-pervious surface); and the water that flows from a vegetated surface when rainfall is in excess of the rate at which it can infiltrate into the underlying soil (runoff from a pervious surface). When all other factors are equal, runoff increases as the perviousness of a surface decreases. During precipitation events in urban areas, rain water may pick up and transports Pollutants through storm water conveyance systems, and ultimately to Waters of the U.S.

Structural BMPs – Physical facilities or controls that may include secondary containment, treatment measures, (e.g. first flush diversion, detention/retention basins, and oil/grease separators), run-off controls (e.g., grass swales, infiltration trenches/basins, etc.), and engineering and design modification of existing structures.

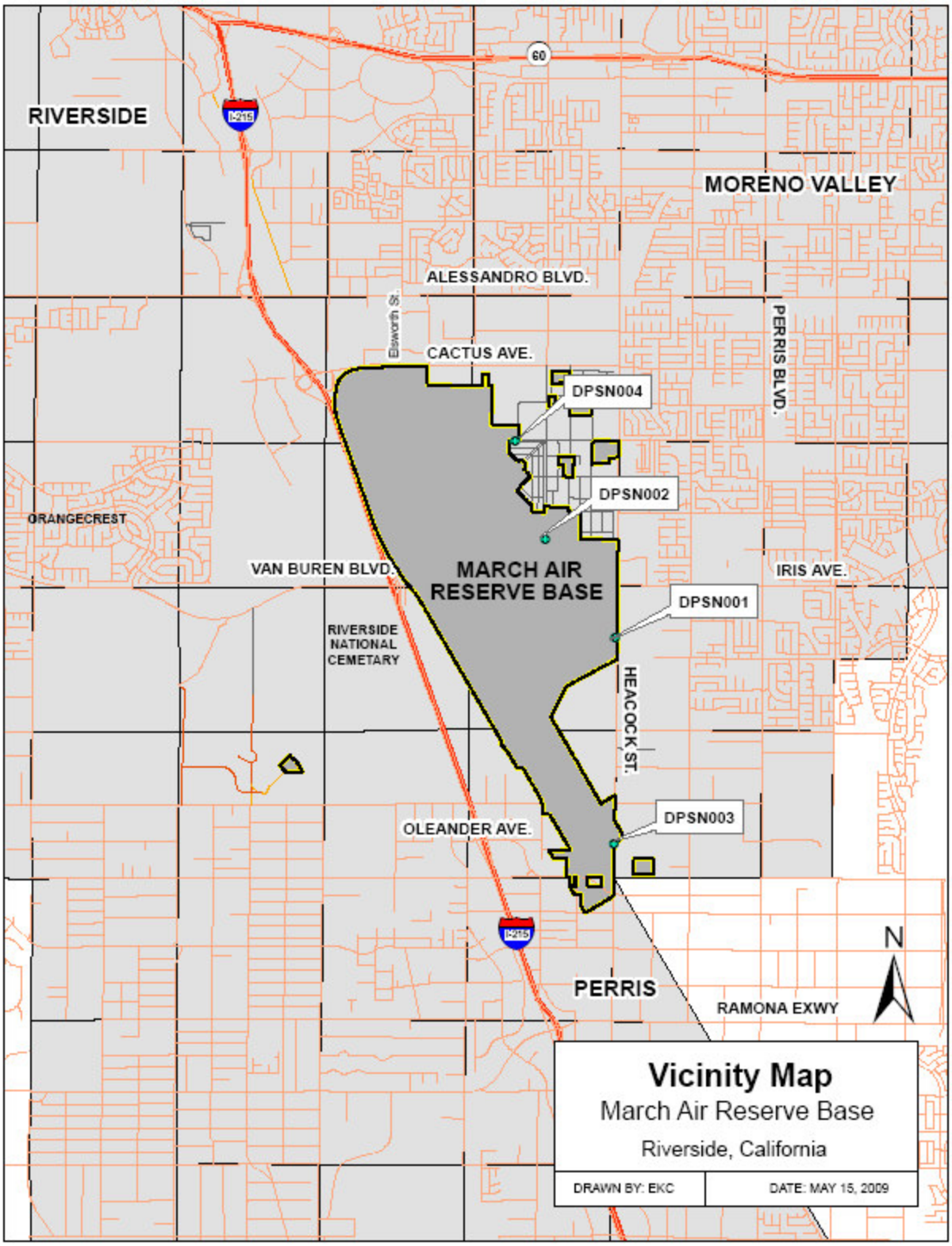
TMDL [Total Maximum Daily Load] – Maximum amount of a Pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain Water Quality Standards. Under CWA Section 303(d), TMDLs must be developed for all water bodies that do not meet Water Quality Standards after application of technology-based controls.

Toxicity – Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

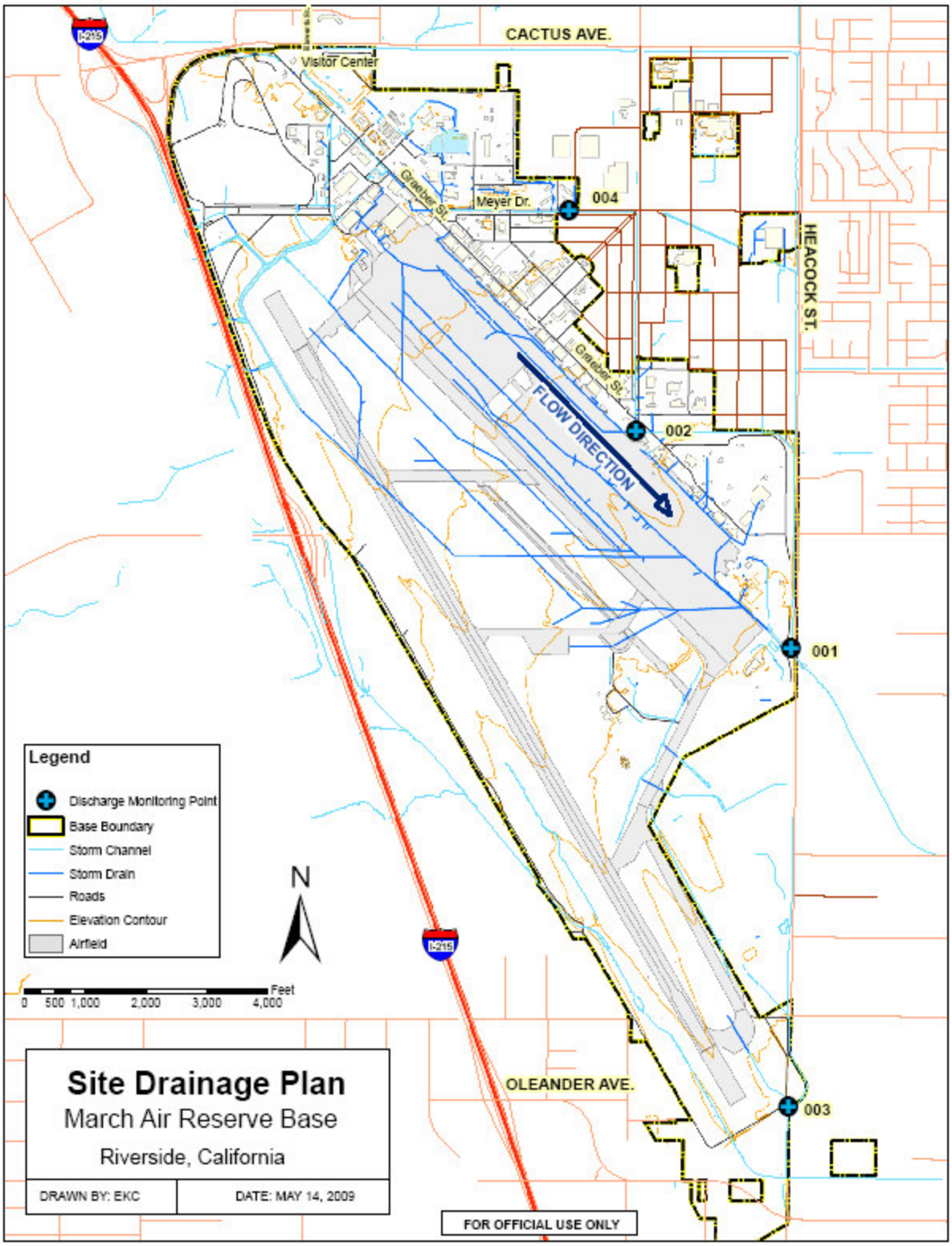
ATTACHMENT B – MAP



ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger shall comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the CWC and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 CFR 122.41(a))

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR 122.41(a)(1))

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 CFR 122.41(c))

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d))

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 CFR 122.41(e))

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR 122.41(g))

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR 122.5(c))

F. Inspection and Entry

The Discharger shall allow the Regional Board, State Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law (40 CFR 122.41(i); CWC 13383) to:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 CFR 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 CFR 122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 CFR 122.41(i)(3)); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 CFR 122.41(i)(4))

G. Bypass

1. Definitions

   a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i))

   b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to

become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii))

2. Bypass not exceeding limitations: The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR 122.41(m)(2))

3. Prohibition of bypass: Bypass is prohibited, and the Regional Board may take enforcement action against a Discharger for bypass, unless (40 CFR 122.41(m)(4)(i)):

    a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR 122.41(m)(4)(i)(A));

    b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR 122.41(m)(4)(i)(B)); and

    c. The Discharger submitted notice to the Regional Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR 122.41(m)(4)(i)(C))

4. The Regional Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR 122.41(m)(4)(ii))

5. Notice

    a. Anticipated bypass: If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 CFR 122.41(m)(3)(i))

    b. Unanticipated bypass: The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 CFR 22.41(m)(3)(ii))

H. Upset

1. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR 122.41(n)(1))

2. Effect of an upset: An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR 122.41(n)(2))

3. Conditions necessary for a demonstration of upset: A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR 122.41(n)(3)):

    a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR 122.41(n)(3)(i));

    b. The permitted facility was, at the time, being properly operated (40 CFR 122.41(n)(3)(ii));

    c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR 122.41(n)(3)(iii)); and

    d. The Discharger complied with any remedial measures required under
    Standard Provisions – Permit Compliance I.C above. (40 CFR 122.41(n)(3)(iv))

4. Burden of proof: In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR 122.41(n)(4))

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR 122.41(f))

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 CFR 122.41(b))

C. Transfers

This Order is not transferable to any person except after notice to the Regional Board. The Regional Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC. (40 CFR 122.41(l)(3) and122.61)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR 122.41(j)(1))

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 CFR 122.41(j)(4) and 122.44(i)(1)(iv))

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Board Executive Officer at

any time. (40 CFR 122.41(j)(2))

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 CFR 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 CFR 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 CFR 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 CFR 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 CFR 122.41(j)(3)(v)); and

6. The results of such analyses. (40 CFR 122.41(j)(3)(vi))

C. Claims of confidentiality for the following information will be denied (40 CFR 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 CFR 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 CFR 122.7(b)(2))

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Board, State Board, or USEPA within a reasonable time, any information which the Regional Board, State Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Board, State Board, or USEPA copies of records required to be kept by this Order. (40 CFR 122.41(h); CWC Section 13267)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Board, State Board, and/or USEPA shall be signed and certified in

accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 CFR122.41(k).)

2. All permit applications shall be signed by a responsible officer, general partner or proprietor. (40 CFR 122.22(a)(2))

3. All reports required by this Order and other information requested by the Regional Board, State Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR 122.22(b)(1));

    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR 122.22(b)(2)); and

    c. The written authorization is submitted to the Regional Board. (40 CFR 122.22(b)(3))

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Board and State Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR 122.22(c))

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

    "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly

responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR 122.22(d))

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR 122.22(l)(4))

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Board or State Board for reporting results of monitoring of sludge use or disposal practices. (40 CFR 122.41(l)(4)(i))

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Board. (40 CFR 122.41(l)(4)(ii))

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR 122.41(l)(4)(iii))

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 CFR 122.41(l)(5))

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not

been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR 122.41(l)(6)(i))

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):

    a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR 122.41(l)(6)(ii)(A))

    b. Any upset that exceeds any effluent limitation in this Order. (40 CFR 122.41(l)(6)(ii)(B))

3. The Regional Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR 122.41(l)(6)(iii))

F. Planned Changes

1. The Discharger shall give notice to the Regional Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR 122.41(l)(1)):

2. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in Section 122.29(b) (40 CFR 122.41(l)(1)(i)); or

3. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR 122.41(l)(1)(ii))

4. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Board or State Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 CFR

122.41(l)(2))

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 CFR 122.41(l)(7))

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Board, State Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR 122.41(l)(8))

VI. STANDARD PROVISIONS – ENFORCEMENT

The Regional Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, Sections 13385, 13386, and 13387.

VII. PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

1. Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Board as soon as they know or have reason to believe (40 CFR122.42(a)):

    a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR122.42(a)(1)):

        i. 100 micrograms per liter (µg/L) (40 CFR122.42(a)(1)(i));

        ii. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 CFR122.42(a)(1)(ii));

        iii. Five (5) times the maximum concentration value reported for

that pollutant in the Report of Waste Discharge (40 CFR122.42(a)(1)(iii)); or

iv. The level established by the Regional Board in accordance with Section 122.44(f). (40 CFR122.42(a)(1)(iv))

b. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" (40 CFR122.42(a)(2)):

i) 500 micrograms per liter (µg/L) (40 CFR122.42(a)(2)(i));

ii) 1 milligram per liter (mg/L) for antimony (40 CFR122.42(a)(2)(ii));

iii) Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR122.42(a)(2)(iii)); or

iv) The level established by the Regional Board in accordance with Section 122.44(f). (40 CFR 122.42(a)(2)(iv))

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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Attachment E – Monitoring and Reporting Program (MRP)

The Code of Federal Regulations (CFR) Title 40 Section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. California Water Code (CWC) Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and state regulations.

I. GENERAL MONITORING PROVISIONS

A. Record Retention.

All monitoring data shall be maintained for at least five years and shall be made available to Regional Board, State Board, USEPA staff and/or their authorized representatives (including an authorized contractor acting as their representative), upon request.

B. Laboratory Certification.

Laboratories within the State of California analyzing monitoring samples shall be certified by the Department of Public Health, in accordance with the provision of CWC Section 13176, and must include quality assurance/quality control (QA/QC) data with their reports.

II. MONITORING LOCATIONS

Establishment of Monitoring Locations

1. The Discharger shall use already established monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in the Order.

2. Effluent monitoring shall take place at discharge locations specified in Table 1, below at Discharge Point Serial Numbers (DPSN) 001, 002, 003, and 004.

3. The Discharger shall collect the effluent samples prior to the effluent leaving the MARB property.

Table 1. Monitoring Station Locations

Discharge Point Serial Number	Monitoring Location Name	Monitoring Location Description
DPSN001	EFF001	Low flows through skimmer discharges to Perris Valley Storm Drain; latitude 33°52'59"N, longitude 117°14'40"W
DPSN002	EFF002	Pipes and open channel to Heacock Channel; latitude 33°53'34"N, longitude 117°15'09"W
DPSN003	EFF003	Shallow swale to ditch to Oleander Channel; latitude 33°51'45"N, longitude 117°14'38"W
DPSN004	EFF004	Pipe culverts and open channel to Heacock Channel latitude 33°54'10" N, longitude 17°15'24"W

III. INFLUENT MONITORING REQUIREMENTS (NOT APPLICABLE)

IV. EFFLUENT MONITORING REQUIREMENTS

General Requirements

1. The Discharger shall monitor effluent from the facility as follows (Table 2):

Table 2. Effluent Monitoring

Constituent	Units	Type of Sample	Sampling frequency
Flow	gpd	--	Twice annually during rainy season
pH	Standard units	Grab	“
Oil and Grease	mg/L	Grab	“
Total settleable solids	mg/L	Grab	“
Total Nitrogen	mg/L	Grab	“
Total Phosphorus	mg/L	Grab	“
Reactive Phosphorus	mg/L	Grab	“

[1] Samples should be collected during the first hour of the discharge. If the discharge occurs before normal working hours, the sample may be taken during the first working hour of the day.

Constituent	Units	Type of Sample	Sampling frequency
MBAS	mg/L	Grab	“
Priority Pollutants	mg/l	Grab	Annually during rainy season
Acute Toxicity	pass/fail	Grab	“

2. The Discharger shall collect grab samples from the first two storm event of the rainy season (October 1 through May 31) causing runoff. Grab samples shall be collected during the first 60 minutes of discharge. If the collection of grab sample(s) within the first 60 minutes is impractical, grab sample(s) may be collected later, but as soon as possible provided that the Discharger includes an explanation in the monitoring report why the grab sample(s) were not collected within the first 60 minutes.

3. A copy of the facility’s storm water pollution prevention plan (SWPPP) must be maintained on-site and a copy of which must be submitted to the Regional Board upon request.

4. The Discharger is required to inspect all outfalls monthly, to determine if dry weather discharges are occurring. At a minimum, a visual inspection shall be conducted to determine the presence of stains, odors, debris, or other conditions that might indicate a non-storm water discharge.

5. If dry weather discharges are observed, samples shall be collected and analyzed for compliance with TDS/TIN objectives.

6. During the rainy season, on a monthly basis, the Discharger shall inspect all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water. Any deficiency shall be corrected as soon as possible.

7. During normal working hours and safety and daylight conditions permitting, the Discharger must observe storm water runoff during the first hour of the first storm event of the rainy season (October through May) that produces a continuous discharge of storm water for one hour or more for the presence of floating and suspended materials, discolorations, turbidity, odor, etc. If this cannot be done during the first storm, then an effort shall be made during subsequent storms to complete the observation. This observation shall be made at as many of the four discharge points as possible.

8. The Discharger is required to measure and record the rainfall each day of the month.

9. The Discharger must maintain all records required by this Order on-site for a period of 5 years from the date they are created, including:

    a. Records documenting all inspections;

    b. Rainfall records; and

    c. Records of the date, time and estimated volume of any overflow of process wastewater to surface waters.

10. The Regional Board shall be notified in writing of any change in the sampling stations.

11. All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 (revised as of April 11, 2007) "Guidelines Establishing Test Procedures for the Analysis of Pollutants," promulgated by the United States Environmental Protection Agency (EPA), unless otherwise specified in this MRP. In addition, the Regional Board and/or EPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 CFR 136.

12. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Public Health in accordance with the provision of Water Code Section 13176, or conducted at a laboratory certified for such analyses by the EPA or at laboratories approved by the Regional Board's Executive Officer.

13. Sampling shall be performed within the reporting periods described in Section X.A of this MRP. Annual effluent analyses shall be performed during the first discharge during the wet season (October – May). Results of all analyses shall be reported in the annual monitoring report.

14. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.

15. All effluent monitoring samples shall be collected during daylight hours only and only when sampling locations may be safely accessed.

16. The analytical results for the priority pollutants should be compared to the

trigger levels in Attachment G - I. For each constituent that is found to exceed the level in Attachment G - I, MARB must sample for those constituents on the next rain event during the same rainy season.

V. TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Monitoring Program

1. The Discharger shall conduct acute toxicity tests on 100% effluent grab samples by methods specified in 40 CFR 136 which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms*, Fifth Edition, October, 2002 (EPA/821-R-02-012) or a more recent edition to ensure compliance. The test shall use a control and a 100% effluent, static renewal survival (pass/fail) tests for 96 hours. Either *Daphnia magna* or *Daphnia pulex* may be used for the required tests under this Order.

2. Effluent samples shall be collected immediately prior to exiting the property.

B. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and EPA/600/R-95/136), then the Discharger must re-sample and re-test at the earliest time possible.

3. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

C. Reporting

1. MARB shall submit a full report of the toxicity test results, including any accelerated testing conducted during the reporting period as required by this Order. Test results shall be reported as pass/fail. If the test acceptability criteria are not achieved, then MARB must re-sample and re-test within 14 days, or upon the occurrence of the next qualifying rain event. The test results must be reported according to the acute manual chapter on Report Preparation, and shall be attached to the monitoring report. The use of alternative methods for measuring acute toxicity may be considered by the Executive Officer on a case-by-case basis.

2. Routine reporting shall include, at a minimum, as applicable, for each test:

    a. Sample date(s);

    b. Test initiation date;

    c. Test species;

3. Available water quality measurements for each test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, ammonia).

4. The Discharger shall provide a compliance summary, which includes a summary table of toxicity data of all samples.

VI. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

VII. RECLAMATION MONITORING REQUIREMENTS (NOT APPLICABLE)

VIII. RECEIVING WATER MONITORING REQUIREMENTS (NOT APPLICABLE)

IX. OTHER MONITORING REQUIREMENTS

1. The Discharger shall continue to implement the approved Watershed-wide and In-lake nutrient TMDLs monitoring program approved pursuant to Board Resolution No. R8-2006-0031. The Discharger shall submit semi-annual reports on the Lake Elsinore in-lake monitoring results and annual reports for watershed-wide and Canyon Lake monitoring results. Reports submitted in a timely and complete manner by the TMDL Task Force on behalf of the Task Force members shall satisfy this requirement, provided that March ARB continues its participation as a Task Force member.

2. MARB shall annually report its mass loading of total phosphorus and total nitrogen discharges into the MS4s.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. Monitoring reports shall be submitted on a semi-annual basis for the periods of April through September and October through March. The reports are due on April 30th and October 30th of each year and shall include:

    a. The results of all chemical analyses for the preceding monitoring period.

b. Estimated daily flows.

c. Estimated duration of all discharges.

d. An explanation for any dry-weather discharge.

e. A copy of all manifests specifically requested for any waste transported from the facility.

2. The semi-annual report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This Section shall clearly list all non-compliance (if any) with waste discharge requirements, as well as any excursions of effluent limitations.

3. The Discharger shall inform the Regional Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

4. The Discharger shall notify the Regional Board by telephone within 24 hours of any unauthorized discharge of wastes. This notification shall be followed by a written report submitted to the Regional Board within 30 days of the discharge. The written report shall contain:

   a. The approximate date and time of the discharge;

   b. The estimated flow rate and duration of the discharge;

   c. The specific type and source of the waste discharges; and

   d. A time schedule and a plan to implement necessary corrective actions to prevent the recurrence of the discharge.

5. All reports shall be signed by a responsible officer or duly authorized representative of the Discharger(s) and shall be submitted under penalty of perjury.

B. Self-Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Board's California Integrated Water Quality System (CIWQS) Program website (http://www.waterboards.ca.gov/ciwqs/index.html). Until

such notification is given, the Discharger shall submit hardcopy SMRs. The CIWQS website will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

3. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

   c. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc.").

   d. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

4. The Discharger shall instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. The Discharger shall submit SMRs in accordance with the following requirements:

   a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

c. SMRs must be submitted to the Santa Ana Regional Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

Santa Ana Regional Water Quality Control Board
Attn: Inland Storm Water Unit
3737 Main St., Suite 500
Riverside, CA 92501

C. Discharge Monitoring Reports (NOT APPLICABLE)

D. Other Reports (NOT APPLICABLE)

ATTACHMENT F – FACT SHEET

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Attachment F – Fact Sheet

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable (N/A)" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table 1. Facility Information

Discharger	United States Air Force
Name of Facility	March Air Reserve Base
Facility Address	610 Meyers Drive, Building 2403
	March ARB, CA 92518-2166
	County of Riverside
Facility Contact	452MSG/CEV, (951) 655-5056
Authorized Person to Sign and Submit Reports	Richard Eunice, Base Civil Engineer, (951) 655-4851
Mailing Address	SAME
Billing Address	452 MSG/CEV, 610 Meyers Drive, Building 2403
Type of Facility	Military Air Operation
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	C
Pretreatment Program	N/A
Reclamation Requirements	N/A
Facility Permitted Flow	N/A
Facility Design Flow	N/A
Watershed	San Jacinto River Watershed
Receiving Water	Perris Valley Storm Drain to the San Jacinto River
Receiving Water Type	River

The March Air Reserve Base (March ARB, Discharger or Facility) is a military air operation facility located directly adjacent to the Cities of Moreno Valley and Perris and nearby the City of Riverside. The facility currently discharges wet weather flows to the San Jacinto

River, a water of the United States, via the Perris Valley Storm Drain which is part of the municipal separate storm sewer systems (MS4s) located within the Cities of Moreno Valley and Perris. Wastes discharged from March ARB are currently regulated by Waste Discharge Requirements (WDRs) Board Order No. R8-2004-0033 (National Pollutant Discharge Elimination System [NPDES] Permit No. CA0111007), which was issued on September 17, 2004. Order No. R8-2004-0033 expired on September 17, 2009. An administrative extension was issued on July 20, 2009 pending adoption of the new permit.

March ARB filed a Report of Waste Discharge (ROWD) and applied for renewal of its WDRs and NPDES permit on February 3, 2009 for discharges of wastes to surface waters.

II. FACILITY DESCRIPTION

March ARB is a United States Air Reserve owned and operated air operation facility located at 610 Meyers Drive, Building 2403, March ARB, California. The 2,300-acre facility includes a runway, maintenance facilities, fueling facilities, offices, lodging facilities and parking lots. The facility keeps approximately 40 military aircrafts.

Facility Classification

The Regional Board and USEPA have classified March ARB as a minor discharge.

A. Description of Facility and Discharge

March ARB is a 2,300-acre military air base located at 610 Meyers Drive, March ARB, California. The facility was realigned from an active-duty Air Force Base to a reserve base on April 1, 1996. There are a number of occupants carrying out activities at March ARB. These occupants include, but are not limited to, the 452nd Air Mobility Wing (AMW), the California Air National Guard Air Refueling Wing and an alert unit, the 63rd Regional Readiness Command and the U.S. Customs Service. The 452nd AMW is headquartered at March ARB. The duties of the 452nd AMW are to maintain the capability to conduct air refueling operations, to transport materials and troops, to provide training in support of aviation activities and other mission objectives of the Department of Defense. The duties of the California Air National Guard are similar to those of the 452nd AMW, with an additional duty to provide assistance to the State of California by responding to state emergencies upon the Governor's request. The 63rd Regional Readiness Command maintains combat-ready operational capabilities in the areas of vehicle and equipment maintenance and storage services in the cantonment area. The U.S. Customs Service provides aerial and ground traffic surveillance, interdiction of aircraft engaged in smuggling and assistance to other law enforcement agencies upon request.

The Discharger currently operates and maintains approximately 40 aircrafts at the facility. The aircraft, vehicle and facility maintenance operations require the on-site storage and use of fuels (jet fuel, gasoline, diesel), solvents, oils and other hazardous materials. These operations generate approximately an average of 290,000 pounds per

year of hazardous wastes that are stored at the site prior to proper disposal.

Storm water, waterline breaks, fire emergency system testing and irrigation runoff are the only wastewaters discharged off-site from March ARB. All of these, except the storm water, will in almost all cases never reach the receiving water of the Perris Valley Storm Channel.

In 1981, the Department of Defense developed the Installation Restoration Program (IRP) to ensure compliance with hazardous waste regulations and to determine the potential sources of contamination. The IRP identified and ranked thirty onsite waste disposal and spill sites as potential sources of contamination at MARB. These investigations led to the inclusion of MARB on the National Priority List (Superfund List). . Further investigations and remedial activities have been conducted and a number of sites are still undergoing remediation of which seven sites are located on MARB.

The sanitary wastes generated at the site are treated at the sewage treatment plant, which is regulated under Regional Board Order No. R8-2003-0113. The reclaimed water from the treatment plant is used at the Riverside National Cemetery and at General Old Golf Course. Reclaimed water use is also regulated under Order No. R8-2003-0113.

This order regulates the discharge of storm water from the site. Four storm water discharge points were selected to provide representation of the storm water runoff from March ARB, as indicated on Attachment "A" of the Order.

B. Discharge Points and Receiving Waters

The facility is located adjacent to the Escondido Freeway (Interstate 215) in Riverside County (Sections 12-15, 22-26, T3S, R4W, and Sections 18, 19, and 30, T3S, R3W, SBB&M). The location of the facility is shown on Attachment "A", which is hereby made a part of this Order. The facility occupies approximately 2,300 acres (the cantonment area). Areas that were formerly part of the Air Force Base and are outside the cantonment area are now under the jurisdiction of the Air Force Real Property Agency, the City of Moreno Valley and the March Joint Powers Authority.

Order No. 99-6, NPDES No. CA 0111007, was issued to the Discharger for the discharge of storm-induced runoff from the facility. Order No. 99-6 regulated three discharge points: Discharge Point Serials No. 001, 002 and 003. The base realignment changed the base boundaries; consequently, this Order includes a redefinition of Discharge Point Serials No. 001, 002 and 003, and an additional discharge point Discharge Point Serial No. 004 (see below).

Storm water runoff from the cantonment area includes drainage from administrative facilities and maintenance hangers, fuel distribution facilities, the runway, taxiway, and aircraft parking apron surfaces where aircraft use, fueling, and maintenance activities

occur, and the vegetated areas adjacent to paved aircraft usage areas. There are four major storm water discharge points from March ARB, as indicated on Attachment "A" of the order and described below. These discharge points were selected from others to provide adequate representation of the storm water runoff from the base drainage with emphasis on industrial areas and airport facilities. The map in Attachments "B" and "C" show the locations of the four discharge points.

Discharge Point Serial No. 001 (DPSN001): The tributary area to Discharge Point Serial No. 001 includes runoff from the former base housing area (known as Arnold Heights) west of the Escondido Freeway (Interstate 215) and north of Van Buren Boulevard, and portions of the right-of-way of Interstate 215. Storm water runoff from the cantonment area includes drainage from administrative facilities and maintenance hangars, fuel distribution facilities, the runway, taxiway, aircraft parking apron surfaces where aircraft use, fueling, and maintenance activities occur, and the vegetated areas adjacent to paved aircraft usage areas. Runoff is conveyed to the east side of March ARB via a system of storm drain pipes and open channels that discharge to the Perris Valley Storm Drain. A large open basin functioning as an oil/water separator is located adjacent to the open channel just upstream of the discharge point to the Perris Valley Storm Drain. Under low flow conditions, a weir in the open channel diverts flow to the oil/water separator. A floating skimmer collects and pumps floating oil and grease and fuel, if any, into a holding tank for storage and proper disposal. Under high flow conditions, storm water flows over the weir and directly into the Perris Valley Storm Drain, which is tributary to the San Jacinto River, Reach 3. In addition to storm water runoff, Discharge Point Serial No. 001 may also receive discharges of water used as part of preventive maintenance and inspection activities at fuel distribution facility 1270, and from testing of the fire suppression system at hangar 1244 and hangar 2303. These discharges are not expected to contain any significant levels of pollutants and typically do not reach Discharge Point Serial No. 001. These discharges will not overflow under dry weather conditions. This Order requires implementation of effective BMPs to control non-storm water discharges, including monitoring. Discharge Point Serial No. 001 is located at latitude 33°52'59"N, longitude 117°14'40"W.

Discharge Point Serial No. 002: Discharges to Discharge Point Serial No. 002 originate from the balance of the aircraft parking apron not tributary to Discharge Point Serial No. 001, including the administrative facilities and maintenance hangars adjacent to Graeber Street and bounded by the Base Operations Tower. Storm water from Discharge Point Serial No. 002 joins with runoff originating from administrative, lodging and commercial facilities south of Meyer Drive and runoff originating from off-base area outside the base northern boundary. This flow is ultimately conveyed eastward via a system of pipes and open channels that merge with Heacock Channel in the vicinity of 8th Street and the base eastern boundary. Heacock Channel is tributary to the Perris Valley Storm Drain, which in turn is tributary to the San Jacinto River, Reach 3. Discharge Point Serial No. 002 is located at latitude 33°53'34"N, longitude 117°15'09"W.

Discharge Point Serial No. 003: Discharges to Discharge Point Serial No. 003 originate from the runway and taxiways, and the vegetated areas adjacent to the runway and taxiways. Runoff is conveyed generally by shallow swale, open channel or pipe culvert to the southeasterly corner of March ARB, where it enters a ditch adjacent to Heacock Avenue and eventually intersects the Oleander Avenue Channel. Storm water then flows south toward the intersection of Oleander Channel. It then turns eastward and discharges to the Perris Valley Storm Drain Lateral B that is tributary to the San Jacinto River, Reach 3. This discharge point is located at latitude 33°51'45"N, longitude 117°14'38"W.

Discharge Point Serial No. 004: Storm water runoff tributary to Discharge Point Serial No. 004 originates from maintenance facilities, visitor lodging quarters, and administrative offices west of Travis Avenue and north of Graeber Street and Meyer Drive. Runoff is conveyed generally by pipe culvert to the open channel paralleling Meyer Drive. The open channel is tributary to the Heacock Channel, which is tributary to the Perris Valley Storm Drain, which in turn is tributary to the San Jacinto River, Reach 3. Discharge Point Serial No. 004 is located at latitude 33°54'10" N, longitude 117°15'24"W.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Discharge Specifications contained in the 2004 Order for discharges from the discharge points and representative monitoring data from the monitoring reports are as follows:

Table 2 Historic Effluent Limitations and Monitoring Data

Parameter	Units	Maximum Allowed	Maximum Reported
Flow	gpd	----	
pH	pH units	6.5 to 8.5	9.38[1]
Total Suspended Solids (TSS)	mg/l	75	354[2]
Oil & Grease (O&G)	mg/l	15	5
Methylene-Blue Active Substance (MBAS)	mg/l	0.5	0.87[2]
Total Nitrogen	mg/l	---	11[1]
Total Phosphorus	mg/l	--	0.56[2]
Reactive Phosphorus	mg/l	--	0.84[1]
Total Petroleum Hydrocarbons (TPH)	µg/l	--------	1300[2]
Acute Toxicity	Pass/fail	----	All passed
Priority Pollutants	µg/l	----	Various

[1] Discharge Point 001
[2] Discharge Point 004

D. Compliance Summary

MARB submits regular monitoring reports. On occasion, the monitoring reports show exceedances of the discharge limitations. When exceedances occur, the base notifies the Regional Board by email as soon as the monitoring results are received. The exceedances are of concern to the base and the Regional Board. The exceedances are investigated. On one occasion when the TSS level was exceeded, March ARB sampled the run-on to demonstrate the cause of the exceedances.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the Order are based on the requirements and authorities described in this Section.

A. Legal Authorities

This Order is issued pursuant to CWA Section 402, regulations adopted by the USEPA and Chapter 5.5, Division 7 of the California Water Code (CWC) commencing with Section 13370. It serves as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as WDRs pursuant to Article 4, Chapter 4, Division 7 of the CWC commencing with Section 13260.

B. California Environmental Quality Act (CEQA)

Under CWC Section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code Sections 21100 through 21177.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Water Quality Control Plan for the Santa Ana River Basin (Santa Ana Basin Plan) was adopted by the Regional Board and became effective on January 24, 1995. The Santa Ana Basin Plan was updated most recently in February 2008.

2. Storm water flows from DPSN001 - 004 are ultimately discharged to the San Jacinto River via the municipal separate storm sewer systems (MS4s) of the County of Riverside. The Basin Plan designates water quality standards that are set forth in this Order. Beneficial uses applicable to the San Jacinto River are as follows:

Table 3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
DPSN001, 002, 003 & 004	Perris North Groundwater sub-basin	Existing: municipal and domestic supply, agricultural supply, industrial process supply and industrial service supply.
DPSN001, 002, 003 & 004	Perris South I and Perris South II Groundwater sub-basins	Existing: municipal and domestic supply and agricultural supply.
DPSN001, 002, 003 & 004	Reach 3 – San Jacinto River	Intermittent: agricultural supply, groundwater recharge, warm freshwater habitat, water contact recreation, non-contact water recreation and wildlife habitat.
DPSN001, 002, 003 & 004	Reach 2 – San Jacinto River, Canyon Lake	Existing: municipal and domestic supply, agricultural supply, groundwater recharge, warm freshwater habitat, water contact recreation, non-contact water recreation, and wildlife habitat.

Requirements of this Order implement the Basin Plan.

3. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. Approximately forty of the water quality criteria in the NTR are applicable in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the State. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

4. **State Implementation Policy.** On March 2, 2000, the State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

5. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes (40 CFR131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

6. **Antidegradation Policy.** 40 CFR 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Board established California's antidegradation policy in State Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of Section 131.12 and State Board Resolution No. 68-16. This Oder is consistent with the State and federal anti-degradation policies.

7. **Anti-Backsliding Requirements.** CWA Sections 402(o)(2) and 303(d)(4) and 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. The effluent limitations in this Order are at least as stringent as those in the previous Order.

D. Impaired Water Bodies on CWA 303(d) List

March ARB discharges to an impaired Receiving Water for which TMDLs have been adopted. See finding Section X.

E. Other Plans, Polices and Regulations

On November 16, 1990, the USEPA promulgated Phase I storm water regulations (40 CFR 122, 123 and 124) in compliance with CWA Section 402(p). These regulations require operators of facilities that discharge storm water associated with industrial activity (storm water discharges) to implement Best Available Technology (BAT) and Best Control Technology (BCT) to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. CWA Section 402(p)(3)(A) also requires that permits for discharges associated with industrial activity include requirements necessary to meet water quality standards. This Order implements the Clean Water Act and its implementing regulations.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source Dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal basis for effluent limitations: 40 CFR122.44(a), which requires that permits include applicable technology-based limitations and standards, and 40 CFR 122.44(d), which requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

March ARB may not discharge any designated wastes, hazardous wastes or any other substance in concentrations toxic to animal or plant life as per the Clean Water Act and the California Water Code.

B. Technology-Based Effluent Limitations

1. Scope and Authority

CWA Section 301(b) and 40 CFR 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum and any more stringent effluent limitations necessary to meet applicable water quality standards (WQS). The discharge authorized by this Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 CFR 125.3.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

- Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and

also the cost effectiveness of additional industrial treatment beyond BPT.

- New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Technology-based effluent limits are intended to achieve a minimum level of treatment of pollutants for point source discharges. CWA Section 402(a)(1) and 40 CFR 125.3 authorize the use of BPJ to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern.

The facility's Storm Water Pollution Prevention Plan (SWPPP) will outline site-specific best management practices (BMPs) to minimize pollutants in storm water runoff and to reduce or prevent contaminated storm water runoff from being discharged. The SWPPP, including BMPs, will serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

2. Applicable Technology-Based Effluent Limitations

There are no discharges of process wastewater at this facility.

C. Water Quality-Based Effluent Limitations

See discussion in Findings, Section P.

D. Effluent Limitations

The proposed order includes limitations for total suspended solids, oil and grease, pH, methylene-blue active substances and toxicity. It also includes requirements for TDS and TIN for any dry weather discharges.

There should be no discharge of process wastewater into waters of the United States from this facility. March ARB is required to update and continue to implement its SWPPP. March ARB is further required to implement the minimum and other source-specific operational BMPs and structural source control BMPs, as applicable, as specified in Attachment J.

E. Reclamation Specifications (Not Applicable)

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

At no time shall the discharge from the facility cause degradation of surface waters, nor shall it cause a nuisance or otherwise adversely affect beneficial uses or violate water quality standards in the receiving water. If more stringent water quality standards are promulgated or approved pursuant to CWA Section 303, or amendments thereto, the Regional Board will reopen this Order to revise or modify in accordance with such standards.

The discharge shall not cause the following limitations to be exceeded in the receiving waters at any location within the receiving waters. These limitations are consistent with the Basin Plan and the CWA.

a. The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units;

b. Dissolved oxygen shall not be less than 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation;

c. No chemicals shall be discharged without prior written approval from the Executive Officer.

B. Groundwater Limitations

The discharge shall not cause the underlying groundwater to be degraded, exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR 122.48 requires that all NPDES permits specify requirements for monitoring and reporting. CWC Sections 13267 and 13383 authorize the Regional Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring (Not Applicable)

B. Effluent Monitoring

Pollutants in storm water runoff from MARB shall be monitored twice annually during the rainy season for flow, pH, temperature, BOD, oil and grease, total nitrogen, total

phosphorus, reactive phosphorus, TSS, and MBAS. Any dry weather discharge into the MS4 shall be analyzed for TDS/TIN.

C. Acute Toxicity Testing Requirements

The MRP includes monitoring requirements for acute toxicity testing of storm water discharges from the facility.

D. Receiving Water Monitoring (Not Applicable)

E. Other Monitoring Requirements (Not Applicable)

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with any additional conditions that are applicable under 40 CFR 122.42.

40 CFR 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 CFR 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC Section 13387(e).

B. TMDL Provisions

These provisions are as a result of properly adopted TMDLs. These provisions describe the adoption processes and the development of the stakeholder workgroups that have been formed to implement the controls necessary to implement the adopted TMDLs.

C. Special Provisions

1. Reopener Provisions

If more stringent applicable water quality standards are promulgated or approved pursuant to CWA Section 303, or amendments thereto, the Regional Board will reopen and modify this Order in accordance with such standards. This Order may be reopened to address any changes in state or federal plans, policies or regulations that would affect the quality requirements for the discharges.

2. Special Studies and Additional Monitoring Requirements (Not Applicable)

VIII. PUBLIC PARTICIPATION

The Regional Board is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the March Air Reserve Base. As a step in the WDR adoption process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the following by posting notices in the vicinity of the facility and in the locality that may be affected by the discharge.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Officer at the Regional Board at the address above on the cover page of the Order.

To be fully responded to by staff and considered by the Regional Board, written comments must be received at the Regional Board offices by 5:00 p.m. on March 4, 2010**.**

C. Public Hearing

The Regional Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **March 18, 2010**
Time: **9:00 a.m.**
Location: **Irvine Ranch Water District**
15600 Sand Canyon Ave
Irvine, CA 92618

Interested persons are invited to attend. At the public hearing, the Regional Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is www.waterboards.ca.gov/santaana where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative Order, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Board by calling (915) 782-4130.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Board, reference this facility, and provide a name, address, and phone number or an email address. Interested parties may also register at:
http://www.waterboards.ca.gov/resources/email_subscriptions/reg8_subscribe.shtml

G. Additional Information

Requests for additional information or questions regarding this order should be directed Michael Roth at the Santa Ana Regional Board, Inland Storm Water Unit at (951) 320-2027 or mroth@waterboards.ca.gov.

ATTACHMENT G - I – EPA PRIORITY POLLUTANTS LIST, MINIMUM LEVELS, ANALYTICAL TECHNIQUES & TRIGGERS FOR MONITORING PRIORITY POLLUTANTS

MINIMUM LEVELS IN PPB (µg/l)

Table 1- VOLATILE SUBSTANCES[1]	GC	GCMS
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromomethane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Dichlorobromomethane	0.5	2
1,1 Dichloroethane	0.5	1
1,2 Dichloroethane	0.5	2
1,1 Dichloroethylene	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichloropropylene (volatile)	0.5	2
Ethylbenzene	0.5	2
Methyl Bromide (*Bromomethane*)	1.0	2
Methyl Chloride (*Chloromethane*)	0.5	2
Methylene Chloride (*Dichloromethane*)	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
Tetrachloroethylene	0.5	2
Toluene	0.5	2
trans-1,2 Dichloroethylene	0.5	1
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
Trichloroethylene	0.5	2
Vinyl Chloride	0.5	2
1,2 Dichlorobenzene (volatile)	0.5	2
1,3 Dichlorobenzene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2

Selection and Use of Appropriate ML Value:

ML Selection: When there is more than one ML value for a given substance, the discharger may select any one of those ML values, and their associated analytical methods, listed in this Attachment that are below the effluent limitation for compliance determination. If no ML value is below the effluent limitation, then the discharger shall select the lowest ML value, and its associated analytical method, listed in the PQL Table.

ML Usage: The ML value in this Attachment represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.
Note: chemical names in parenthesis and italicized is another name for the constituent.

[1] *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 2 – Semi-Volatile Substances[2]	GC	GCMS	LC
2-Chloroethyl vinyl ether	1	1	
2 Chlorophenol	2	5	
2,4 Dichlorophenol	1	5	
2,4 Dimethylphenol	1	2	
4,6 Dinitro-2-methylphenol	10	5	
2,4 Dinitrophenol	5	5	
2- Nitrophenol		10	
4- Nitrophenol	5	10	
4 Chloro-3-methylphenol	5	1	
2,4,6 Trichlorophenol	10	10	
Acenaphthene	1	1	0.5
Acenaphthylene		10	0.2
Anthracene		10	2
Benzidine		5	
Benzo (a) Anthracene (*1,2 Benzanthracene*)	10	5	
Benzo(a) pyrene (*3,4 Benzopyrene*)		10	2
Benzo (b) Flouranthene (*3,4 Benzofluoranthene*)		10	10
Benzo(g,h,i)perylene		5	0.1
Benzo(k)fluoranthene		10	2
bis 2-(1-Chloroethoxyl) methane		5	
bis(2-chloroethyl) ether	10	1	
bis(2-Chloroisopropyl) ether	10	2	
bis(2-Ethylhexyl) phthalate	10	5	
4-Bromophenyl phenyl ether	10	5	
Butyl benzyl phthalate	10	10	
2-Chloronaphthalene		10	
4-Chlorophenyl phenyl ether		5	
Chrysene		10	5
Dibenzo(a,h)-anthracene		10	0.1
1,2 Dichlorobenzene (semivolatile)	2	2	
1,3 Dichlorobenzene (semivolatile)	2	1	
1,4 Dichlorobenzene (semivolatile)	2	1	
3,3-Dichlorobenzidine		5	
Diethyl phthalate	10	2	
Dimethyl phthalate	10	2	
di-n-Butyl phthalate		10	
2,4 Dinitrotoluene	10	5	
2,6 Dinitrotoluene		5	
di-n-Octyl phthalate		10	
1,2-Diphenylhydrazine		1	
Fluoranthene	10	1	0.05
Fluorene		10	0.1
Hexachloro-cyclopentadiene	5	5	
1,2,4 Trichlorobenzene	1	5	

MINIMUM LEVELS IN PPB (µg/l)

Table 2 - SEMI-VOLATILE SUBSTANCES[2]	GC	GCMS	LC	COLOR
Pentachlorophenol	1	5		
Phenol [3]	1	1		50
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
N-Nitroso diphenyl amine	10	1		
Phenanthrene		5	0.05	
Pyrene		10	0.05	

Table 3– INORGANICS[4]	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1000
Arsenic		2	10	2	2	1		20	1000
Beryllium	20	0.5	2	0.5	1				1000
Cadmium	10	0.5	10	0.25	0.5				1000
Chromium (total)	50	2	10	0.5	1				1000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1000
Lead	20	5	5	0.5	2				10000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1000
Selenium		5	10	2	5	1			1000
Silver	10	1	10	0.25	2				1000
Thallium	10	2	10	1	5				1000
Zinc	20		20	1	10				1000
Cyanide								5	

[2] *With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1000, therefore, the lowest standards concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1000.*

[3] *Phenol by colorimetric technique has a factor of 1.*

[4] *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 4- PESTICIDES – PCBs[5]	GC
Aldrin	0.005
alpha–BHC (*a-Hexachloro-cyclohexane*)	0.01
beta–BHC (*b-Hexachloro-cyclohexane*)	0.005
Gamma–BHC (*Lindane; g-Hexachloro-cyclohexane*)	0.02
Delta-BHC (*d-Hexachloro-cyclohexane*)	0.005
Chlordane	0.1
4,4'-DDT	0.01
4,4'-DDE	0.05
4,4'-DDD	0.05
Dieldrin	0.01
Alpha-Endosulfan	0.02
Beta-Endosulfan	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

Techniques:
GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma

[5] *The normal method-specific factor for these substances is 100, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.*

ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

ATTACHMENT I – TRIGGERS FOR MONITORING PRIORITY POLLUTANTS

	CONSTITUENT	µg/L
1	Antimony	2150
2	Arsenic	75
3	Beryllium	--
4	Cadmium	4.6
5a	Chromium III	151
5b	Chromium VI	5.5
6	Copper	18
7	Lead	17
8	Mercury	0.026
9	Nickel	38
10	Selenium	2.5
11	Silver	4.5
12	Thallium	3.2
13	Zinc	88
14	Cyanide	2.6
15	Asbestos	--
16	2,3,7,8-TCDD (Dioxin)	0.000000007
17	Acrolein	390
18	Acrylonitrile	0.33
19	***Benzene***	***1***
20	Bromoform	180
21	***Carbon Tetrachloride***	***0.5***
22	Chlorobenzene	10500
23	Chlorodibromomethane	17
24	Chloroethane	--
25	2-Chloroethyl vinyl ether	--
26	Chloroform	--
27	Dichlorobromomethane	23
28	***1,1-Dichloroethane***	***5***
29	***1,2-Dichloroethane***	***0.5***
30	***1,1-Dichloroethylene***	***6***
31	***1,2-Dichloropropane***	***5***
32	***1,3-Dichloropropylene***	***0.5***
33	***Ethylbenzene***	***300***
34	Methyl Bromide	2000
35	Methyl Chloride	--
36	Methylene Chloride	800
37	***1,1,2,2-Tetratchloroethane***	***1***

	CONSTITUENT	µg/L
38	***Tetratchloroethylene***	***5***
39	***Toluene***	***150***
40	***1,2,-Trans-dichloroethylene***	***10***
41	***1,1,1-Trichloroethane***	***200***
42	***1,1,2-Trichloroethane***	***5***
43	***Trichloroethylene***	***5***
44	***Vinyl Chloride***	***0.5***
45	2-Chlorophenol	200
46	2,4-Dichlorophenol	395
47	2,4-Dimethylphenol	1150
48	2-Methy-4,6-Dinitrophenol	383
49	2,4-Dinitrophenol	7000
50	2-Nitrophenol	--
51	4-Nitrophenol	--
52	3-Methyl-4-Chlorophenol	--
53	***Pentachlorophenol***	***1***
54	Phenol	2,300,000
55	2,4,6-Trichlorophenol	3.3
56	Acenapthene	1,350
57	Acenapthylene	--
58	Anthracene	55,000
59	Benzidine	0.00027
60	Benzo (a) anthracene	0.025
61	Benzo (a) pyrene	0.025
62	Benzo (b) fluoranthene	0.025
63	Benzo (g,h,i) pyrylene	--
64	Benzo (k) fluorantene	0.025
65	Bis (2-Chloroethoxy) methane	--
66	Bis (2-Chloroethyl) ether	0.7
67	Bis (2-Chloroisopropyl) ether	85,000
68	Bis (2-ethyhexyl) phthalate	3.0
69	4-Bromophenyl phenyl ether	--
70	Butyl benzyl phthalate	2600
71	2- Chloronapthalene	2150
72	4-Chlrorphenyl phenyl ether	--
73	Chrysene	0.025
74	Dibenzo (a,h) anthracene	0.025
75	***1,2-Dichlorobenzene***	***600***

ATTACHMENT I. -Continued

	CONSTITUENT	µg/L
76	1,3-Dichlorobenzene	1300
77	***1,4-Dichlorobenzene***	***5***
78	3,3-Dichlorobenzidine	0.039
79	Diethyl phthalate	60000
80	Dimethyl phthalate	1,450,000
81	Di-N-butyl phthalate	6000
82	2,4-Dinitrotoluene	4.6
83	2,6-Dinitrotoluene	--
84	Di-N-octyl phthalate	--
85	1,2-Diphenylhydrazine	0.27
86	Fluoranthene	185
87	Fluorene	7000
88	Hexachlorobenzene	0.00039
89	Hexachlorobutadiene	25
90	***Hexachlorocyclopentadiene***	***50***
91	Hexachloroethane	4.5
92	Indeno (1,2,3-cd) pyrene	0.025
93	Isophorone	300
94	***Naphthalene***	***17***
95	Nitrobenzene	950
96	***N-Nitrosodimethylamine***	***0.01***
97	***N-Nitrosodi-N-propylamine***	***0.01***
98	N-Nitrosodiphenylamine	8
99	Phenantrene	--

	CONSTITUENT	µg/L
100	Pyrene	5500
101	***1,2,4 -Trichlorobenzene***	***5***
102	Aldrin	0.00007
103	BHC Alpha	0.0065
104	BHC Beta	0.023
105	BHC Gamma	0.031
106	BHC Delta	--
107	Chlordane	0.0003
108	4,4-DDT	0.0003
109	4,4-DDE	0.0003
110	4,4-DDD	0.00042
111	Dieldrin	0.00007
112	Endosulfan Alpha	0.028
113	Endosulfan Beta	0.028
114	Endosulfan Sulfate	120
115	Endrin	0.018
116	Endrin Aldehyde	0.42
117	Heptachlor	0.00011
118	Heptachlor Epoxide	0.000055
119	PCB 1016	0.000085
120	PCB 1221	0.000085
125	PCB 1260	0.000085
126	Toxaphene	0.001

Notes:

1. For constituents not shown italicized, the values shown in the Table are fifty percent of the most stringent applicable receiving water objectives (freshwater or human health (consumption of water and organisms) as specified for that pollutant in 40 CFR 131.38[6]).
2. For constituents shown bold and italicized, the values shown in the Table are based on the California Department of Public Health maximum contaminant levels (MCLs) or Notification Level. Notification Level based trigger is underlined.
3. For hardness dependent metals, the hardness value used is 158 mg/L as 5th percentile of effluent flows and for pentachlorophenol, the pH value used is 7.5 standard units.

[6] *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

ATTACHMENT J – REQUIRED MINIMUM AND OTHER SOURCE-SPECIFIC OPERATIONAL BEST MANAGEMENT PRACTICES (BMPS)

1. Minimum Operational BMPs

To comply with the permit, the categories of operational BMPs listed in this section are a minimum set of BMPs that must be included in the storm water pollution prevention plan (SWPPP).

A. *Formation of a Pollution Prevention Team*; The responsible MARB official must organize a pollution prevention team and assign responsibilities that comply with the Permit. The responsibilities include:

a) Assigning one or more individuals by name and title to be responsible to assist the base management in updating and implementing the SWPPP.

b) Holding regular meetings to review the overall operation of the BMPs.

c) Updating responsibilities for sampling, inspections, operation and maintenance, and availability for emergency situations.

d) Arranging the training of all team members in the operation, maintenance, and inspections of BMPs.

B. *Good Housekeeping:* Good housekeeping is an ongoing approach to improve and maintain a clean and orderly work environment and includes the following BMPs:

a) Promptly contain and clean up solid and liquid pollutant leaks and spills including oils, solvents, fuels, food waste, and construction debris from operations on any soil, vegetation, or paved area exposed to storm water.

b) Sweep paved material handling and storage areas regularly as needed to collect and dispose of dust and debris that could contaminate storm water. Do not hose down pollutants from any area to the ground, storm drain, conveyance ditch, or receiving water unless necessary for dust control purposes to meet air quality regulations and the pollutants are conveyed to a treatment system approved by the local jurisdiction.

c) Clean oils, debris, sludge, etc. from all BMP systems regularly, including catch basins, sedimentation basins, oil/water separators, boomed areas, and conveyance systems, to prevent the contamination of storm water.

d) Promptly repair or replace all substantially cracked or otherwise damaged paved secondary containment and any other drainage areas, which are subjected to pollutant material leaks or spills.

e) Promptly repair or replace all leaking connections, pipes, hoses, valves, etc., which can contaminate storm water.

f) Use solid absorbents, e.g., clay and peat absorbents and rags for cleanup of liquid spills/leaks, where practicable.

C. *Preventive Maintenance*: A preventive maintenance program includes inspection and maintenance of storm water management devices (BMPs) and drainage systems, and routine inspections of industrial facility operations including vehicle maintenance. Equipment such as tanks, containers (drums), and outside piping, pumps, and process equipment should be checked regularly for signs of deterioration. The following are additional preventive BMPs applicable at industrial sites:

a) Prevent the discharge of un-permitted liquid or solid wastes, process wastewater, and sewage to ground or surface water or to storm drains, which discharge, to surface water or to the ground. Floor drains in potential pollutant source areas shall not be connected to storm drains, surface water, or to the ground. Eliminate illicit non-storm water discharges within 30 days of discovery.

b) Conduct all oily parts cleaning, steam cleaning, or pressure washing of equipment or containers inside a building and/or on an impervious contained area such as a concrete pad. Direct contaminated run-off from any such cleaning operation to a sanitary sewer where allowed by local sewer authority.

c) Do not pave over contaminated soil unless it has been determined that ground water has not been and will not be contaminated by the soil.

d) Construct impervious areas that are compatible with the materials handled. Portland cement concrete, asphalt, or equivalent material may be considered.

e) Use drip pans to collect leaks and spills from equipment such as cranes at repair facilities, industrial parts, trucks, and other vehicles that are stored outside. Empty drip pans immediately after a spill or leak are collected.

f) Drain oil from fuel filters before disposal. Discard empty oil and fuel filters, oily rags, and other oily solid waste into appropriately closed and properly labeled containers and in compliance with the Uniform Fire Code (UFC).

g) For the storage of liquids, use containers, such as steel and plastic drums, that are rigid and durable, corrosion resistant to the weather and the fluid being collected, nonabsorbent, water tight, rodent-proof, and equipped with a close fitting cover.

h) For the temporary storage of solid wastes contaminated with liquids or other potential pollutant materials, use dumpsters, garbage cans, drums and comparable containers that are durable, corrosion resistant, non-absorbent, non-leaking, and equipped with either a solid cover or screen cover to prevent littering. If covered with a screen, the container must be stored under a roof.

i) Where exposed to storm water, use containers, piping, tubing, pumps, fittings, and valves those are appropriate for their intended use and for the contained liquid.

j) Note: Evidence of storm water contamination can include the presence of floatables, visible sheen, discoloration, odor, or turbidity in the runoff. Use pH paper or a pH-meter to test for storm water contamination in areas subject to acid or alkaline contamination.

D. *Spill Prevention, Reporting and Emergency Cleanup*: Identify area(s) of the facility where oil, hazardous material, or other pollutant spill(s) is/are likely to occur and their drainage points. Ensure that employees are aware of response procedures, including material handling and storage requirements. Access to appropriate spill cleanup equipment is essential. The SWPPP may include excerpts from other spill plans for the facility, e.g., Federal Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Clean Water Act. The following are spill control and reporting BMPs:

a) Stop, contain, and clean up all spills immediately upon discovery. Do not flush absorbent materials or other spill cleanup materials to a storm drain or to surface waters. Collect the contaminated absorbent materials and place in appropriate disposal containers.

b) Report all spills that may have an adverse impact on human health or the environment within 24-hours to the Regional Board (951-782-4130), Western Municipal Water District (951-789-5000, those spills that could have an impact on drinking water sources) and the local sewer authority (if the discharge is to the sewer). Take all reasonable steps to minimize any adverse impacts to waters of the state and to correct the problem. A written report of the incident must be provided within 30 days of the spill incident. Compliance with the preceding requirements does not relieve the Permittee from responsibility to maintain continuous compliance with all permit conditions or the resulting liability for failure to comply.

c) Place and maintain emergency spill containment and cleanup kits at areas where there is a potential for spills. These kits should be appropriate for the materials being handled and the size of the potential spill, and readily accessible to personnel responsible for spill response. The spill containment and cleanup kits should include: drums or containers, such as high density polyethylene, polypropylene or polyethylene sheet-lined steel; polyethylene or equivalent disposal bags; an emergency response guidebook; safety gloves/clothes/ equipment; shovels or other soil removal equipment; and oil containment booms and absorbent pads.

2. Other Source-Specific Operational and Structural Source Control BMPs

A. BMPs for Dust Control

a) *Description of Pollutant Sources*: Material handling activities can generate dust that is typically removed from buildings using exhaust systems. This can generate air emissions that can contaminate the air and storm water. Dust can be generated wherever powdered materials are handled. Proper control measures should be implemented to minimize dust generation.

b) *Pollutant Control Approach:* Prevent dust generation and emissions where practicable, regularly clean-up dust contaminated areas and treat any dust contaminated storm water.

c) Applicable BMPs

(1) Clean all material handling equipment and vehicles that handle powdered and liquid materials.

(2) Regularly sweep areas that accumulate dust using vacuum filter equipment to minimize dust generation and to ensure optimal dust removal.

(3) Consider using dust filtration/collection systems such as bag house filters, cyclone separators, etc., to control dust emissions to the atmosphere.

(4) Use water spray for dust suppression direct the runoff to appropriate treatment systems.

(5) Use only approved dust suppressants.

d) For removal of suspended solids in storm water, use sedimentation basins, wet ponds, wet vaults, catch basin filters, vegetated filter strips, or equivalent sediment removal BMPs.

B. BMPs for Fueling at Dedicated Stations

a) *Description of Pollutant Sources:* Typically, storm water contamination at fueling stations is caused by leaks/spills of fuels, lube oils, radiator coolants, and vehicle washwater.

b) *Pollutant Control Approach:* Construct a cover over the fueling area and conduct the fueling in an impervious containment area.

c) Operational BMPs:

(1) Prepare an emergency spill response and cleanup plan (see applicable spill control BMPs) and have designated trained person(s) available either on site or on call at all times to promptly and properly implement that plan and immediately cleanup all spills. Keep suitable cleanup materials, such as dry adsorbent materials, on site to allow prompt cleanup of a spill.

(2) Train employees on the proper use of fuel dispensers. Post signs in accordance with the Uniform Fire Code (UFC). Post "No Topping Off' signs (topping off gas tanks causes spillage and vents gas fumes to the air). Make sure that the automatic shutoff on the fuel nozzle is functioning properly.

(3) The person conducting the fuel transfer must be present at the fueling pump during fuel transfer, particularly at unattended or self-serve stations.

(4) Keep drained oil filters in a suitable container or drum.

d) *Structural Source Control BMPs:*

(1) Design the fueling island to control spills (dead-end sump or spill control separator in compliance with the UFC) and to treat collected storm water and/or wastewater. Slope the concrete containment pad around the fueling island toward drains-either trench drains, catch basins, and/or a dead-end sump. The slope of the drains shall not be less than 1 percent (Section 7901.8 of the UFC). Drains to treatment shall have a shutoff valve, which must be closed in the event of a spill. The spill control sump must be sized in compliance with Section 7901.8 of the UFC; or Design the spill containment pad of the fueling island with a sill or berm raised to a minimum of four inches (Section 7901.8 of the UFC) to prevent the runoff of spilled liquids and to prevent run-on of storm water from the surrounding area. Raised sills are not required at the open-grate trenches that connect to an approved drainage-control system.

(2) The fueling pad must be paved with Portland cement concrete, or equivalent. Asphalt is not considered an equivalent material.

(3) The fueling island must have a roof or canopy to prevent the direct entry of precipitation onto the spill containment pad. The roof or canopy should, at a minimum, cover the spill containment pad (within the grade break or fuel dispensing area) and preferably extend several additional feet to reduce the introduction of windblown rain. Convey all roof drains to storm drains outside the fueling containment area.

(4) If treatment of the runoff is required storm water collected on the fuel island containment pad must be conveyed to a sanitary sewer system, if approved by the sanitary authority; or to an appropriate treatment system such as an oil/water separator, media filter, biofilter, or equivalent treatment. Discharges from treatment systems to storm drains or surface water or to the ground must not have an ongoing or recurring visible sheen and must not contain concentration values greater than the limits specified in this Order for oil and grease.

(5) Alternatively, storm water collected on the fuel island containment pad may be collected and held for proper off-site disposal.

(6) Conveyance of any fuel-contaminated storm water to a sanitary sewer must be approved by the local sewer authority and must comply with pretreatment regulations. These regulations prohibit discharges that could cause fire or explosion. An explosive or flammable mixture is defined under state and federal pretreatment regulations, based on a flash point determination of the mixture. If contaminated storm water is determined not to be explosive, then it could be conveyed to a sanitary sewer system under authorization from the sewer authority.

(7) Transfer the fuel from the delivery tank trucks to the fuel storage tank in impervious contained areas and ensure that appropriate overflow protection is

used. Alternatively, cover nearby storm drains during the filling process and use drip pans under all hose connections.

e) *Additional BMPs for vehicles ten feet in height or greater:* A roof or canopy may not be practicable at fueling stations that regularly fuel vehicles that are ten feet in height or greater. At those types of fueling facilities, the following BMPs apply, as well as the applicable BMPs and fire prevention (UFC requirements) of this BMP for fueling stations. If a roof or canopy is impractical the concrete fueling pad must be equipped with emergency spill control, which includes a shutoff valve for the drainage from the fueling area. The valve must be closed in the event of a spill. An electronically actuated valve is preferred to minimize the time lapse between spill and containment. Spills must be cleaned up and properly disposed off site.

If treatment is required the valve may be opened to convey contaminated storm water to a sanitary sewer, if approved by the sewer authority, or to a oil/water separator, media filter, biofilter, or equivalent treatment systems approved by the Executive Officer. Discharges from treatment systems to storm drains or surface water or to the ground must not display ongoing or recurring visible sheen and must meet the oil and grease limits specified in this Order.

C. BMPs for Non-storm water Illicit Connections to Storm Drains:

a) *Description of Pollutant Sources:* Illicit connections are unpermitted sanitary or process wastewater or other non-storm water discharges to a storm drain or to a surface water. Examples of non-storm water discharges include any process water, vehicle washwater, and sanitary wastewater.

Pollutant Control Approach: Identify and eliminate unpermitted discharges within 30 days.

b) Operational BMPs:

(1) Identify and eliminate unpermitted non-storm water discharges to storm drains, ground water, or surface water; and, convey unpermitted discharges to a sanitary sewer if allowed by the local sewer authority, or to other approved treatment systems. Conduct a survey of sanitary and industrial wastewater, condensate, cooling water, and any other non-storm water discharge connections to storm drains and to surface waters.

(2) Conduct a field survey of buildings, particularly older buildings, and other facility areas to locate storm drains from buildings and paved surfaces and determine if there are any illicit connections.

(3) Prepare a map of each area showing the known locations of storm drains, sanitary sewers, and permitted and unpermitted discharges. Aerial photos may be useful. Check records such as piping schematics to identify known sewer connections and show these on the map. Consider using smoke, dye, or chemical tests to detect connections between two conveyance systems (e.g., process water and storm water). If desirable, conduct TV inspections of the

storm drains and record the footage on videotape. Compare the observed locations of connections with the information on the map and revise the map accordingly. Note suspect connections that are inconsistent with the field survey. Several of the common dry weather inspection methods are described below.

(4) Fire emergency system testing flows are not considered to be pollutant sources if appropriate BMPs are implemented.

Common Dry Weather Methods for Locating Non-storm Water Discharges

(i) Review a sewer map or plant schematic (a map of pipes and drainage systems used to carry process wastewater, non-contact cooling water, air conditioner condensate, kitchen mat wash down waste and sanitary wastes (bathrooms, sinks, etc.). In many cases, as-built schematics may not be accurate. Determine where interior floor drains discharge. The drain(s) may be connected to the storm drains. If so, they *must* be disconnected and redirected to the sanitary sewer. Contact your local sewer agency before redirecting flow to the sanitary sewer.

(ii) Observe all discharge points during dry weather for odors, discolorations, abnormal flows or conditions. These discharge points should be dry during a period of extended dry weather since a storm water collection system should only collect storm water.

(iii) Smoke testing of wastewater and storm water collection and conveyance is used to detect connections between the two systems.

(iv) A dye test can be performed by simply releasing a dye into floor drains, sinks, basins, or other potential contaminant sources that may discharge to a surface water or storm drains. Examine discharge points in the storm water collection system or surface water for discoloration.

D. BMPs for Pesticide Management

a) *Description of Pollutant Sources:* Runoff from pesticide application areas can cause contamination of storm water. Pesticide applications include insect control on lumber and logs, rooftop moss removal, and killing nuisance rodents. Leaching and dripping from treated parts, container leaks, product misuse, and outside storage of pesticide contaminated materials and equipment can cause storm water contamination.

b) *Pollutant Control Approach*: Develop and implement an Integrated Pest Management Plan (IPM) and use pesticides only as a last resort. If pesticides/herbicides are used they must be carefully applied in accordance with label instructions.

c) Operational BMPs for the Use of Pesticides:
Develop and implement an IPM and use pesticides only as a last resort and consider the following steps:
Step 1. Correctly identify problem pests and understand their life cycle.
Step 2. Establish tolerance thresholds for pests.

Step 3. Monitor to detect and prevent pest problems.
Step 4. Modify the maintenance program to promote healthy plants and discourage pests.
Step 5. Use cultural, physical, mechanical, or biological controls first if pests exceed the tolerance thresholds.
Step 6. Evaluate and record the effectiveness of the control and modify maintenance practices to support lawn or landscape recovery and prevent recurrence.

d) Implement a pesticide-use plan and include at a minimum: a list of selected pesticides and their specific uses; brands, formulations, application methods and quantities to be used; equipment use and maintenance procedures; safety, storage, and disposal methods; and monitoring, record keeping, and public notice procedures. Include the following BMPs:

Choose the least toxic pesticide available that is capable of reducing the infestation to acceptable levels. The pesticide should readily degrade in the environment and/or have properties that strongly bind it to the soil. Any pest control used should be conducted at the life stage when the pest is most vulnerable. Any method used should be site specific and not used wholesale over a wide area.

(1) Apply the pesticide according to label directions. Under no conditions shall pesticides be applied in quantities that exceed manufacturer's instructions.

(2) Mix the pesticides and clean the application equipment in an area where accidental spills will not enter surface or ground waters and will not contaminate the soil.

(3) Store pesticides in enclosed areas or in covered impervious containment. Ensure that pesticide contaminated storm water or spills/leaks of pesticides are not discharged to storm drains. Do not hose down the paved areas to a storm drain or conveyance ditch. Store and maintain appropriate spill cleanup materials in a location known to all near the storage area.

(4) Clean up any spilled pesticides and ensure that the pesticide contaminated waste materials are kept in designated covered and contained areas.

(5) Include immediate shutoff of the pesticide application equipment in the event of an emergency.

(6) Do not spray pesticides within 100 feet of open waters including wetlands, ponds, and streams, sloughs and any drainage ditch or channel that leads to open water except when approved by Regional Board or the local regulatory agency. All sensitive areas including wells, creeks, and wetlands must be flagged prior to spraying.

(7) As required by the local government or by California Department of Food and Agriculture, complete public posting of the area to be sprayed prior to the application.

(8) Spray applications should be conducted only during weather conditions as specified in the label direction and applicable local and state regulations. Do not apply during rain or shortly before expected rain.

(9) Consider alternatives to the use of pesticides such as covering or harvesting weeds, substituting vegetative growth, and manually controlling weeds and removing moss.

(10) Rinsate from equipment cleaning and/or triple rinsing of pesticide containers should be used as product or recycled into product.

(11) Once a pesticide is applied, its effectiveness should be evaluated for possible improvement. Records should be kept showing the applicability and inapplicability of the pesticides considered. An annual evaluation procedure should be developed including a review of the effectiveness of pesticide applications, impact on buffers and sensitive areas (including potable wells), public concerns, and recent toxicological information on pesticides used/proposed for use.

(12) If individual or public potable wells are located in the proximity of commercial pesticide applications, contact the state Department of Health or Department of Food and Agriculture hydrogeologist to determine if additional pesticide application control measures are necessary.

(13) Consider the use of soil amendments, such as compost, that are known to control some common diseases in plants such as Pythium root rot, ashy stem blight, and parasitic nematodes. The following are three possible mechanisms for disease control by compost addition (USEPA Publication 530-F-9-044):

(a) Successful competition for nutrients by antibiotic production.

(b) Successful predation against pathogens by beneficial microorganism.

(c) Activation of disease-resistant genes in plants by composts.

Note: Installing an amended soil/landscape system can preserve both the plant system and the soil system more effectively. This type of approach provides a soil/landscape system with adequate depth, permeability, and organic matter to sustain itself and continue working as an effective storm water infiltration system and a sustainable nutrient cycle.
For more information, contact the Bio-Integral Resource Center (BIRC), P.O. Box 7414, *Berkeley, CA 94707, and/or EPA to obtain a publication entitled "Suspended, Canceled and Restricted Pesticides" which lists all restricted pesticides and the specific uses that are allowed. Valuable information from these sources may also be available on the internet.*

E. <u>BMPs for Loading and Unloading Areas for Liquid or Solid Material</u>

a) *<u>Description of Pollutant Sources</u>*: Loading and unloading of liquid and solid materials are typically conducted at shipping and receiving, outside storage, fueling

areas, etc. Materials transferred can include products, raw materials, intermediate products, waste materials, fuels, and scrap metals. Leaks and spills of fuels, oils, powders, organics, heavy metals, salts, acids, alkalis, etc., during transfer are potential causes of storm water contamination. Spills from hydraulic line breaks are a common problem at loading docks.

b) *Pollutant Control Approach:* Cover and contain the loading/unloading area where necessary to prevent run-on of storm water and run-off of contaminated storm water.

c) *Operational BMPs:*

A significant amount of debris can accumulate at outside, uncovered loading/unloading areas. Sweep these surfaces frequently to remove material that could otherwise be washed off by storm water. Sweep outside areas that are covered for a period of time by containers, logs, or other material after the areas are cleared.

d) Place drip pans, or other appropriate temporary containment device, at locations where leaks or spills may occur such as hose connections, hose reels, and filler nozzles. Drip pans shall always be used when making and breaking connections. Check loading/unloading equipment such as valves, pumps, flanges, and connections regularly for leaks and repair as needed.

e) At Tanker Truck and Rail Transfer Areas to Above/Below-ground Storage Tanks.
To minimize the risk of accidental spillage, prepare an operations plan that describes procedures for loading/unloading. Train the employees, especially fork lift operators, in its execution and post it or otherwise have it readily available to employees.

f) Prepare and implement an emergency spill cleanup plan for the facility which includes the following BMPs:

(1) Ensure the cleanup of liquid/solid spills in the loading/unloading area immediately, if a significant spill occurs, and, upon completion of the loading/unloading activity, or, at the end of the working day.

(2) Retain and maintain an appropriate oil spill cleanup kit on-site for rapid cleanup of material spills.

(3) Ensure that an employee trained in spill containment and cleanup is present during loading/unloading.

(4) Report spills as required in the reporting requirements of the Order.

At Rail Transfer Areas to Above/Below-Ground Storage Tanks.

g) Install a drip pan system within the rails to collect spills/leaks from tank cars and hose connections, hose reels, and filler nozzles.

h) Structural Source Control BMPs

At All Loading/Unloading Areas

(1) Consistent with UFC requirements and to the extent practicable, conduct unloading or loading of solids and liquids in the facility building, under a roof, or lean-to, or other appropriate cover.

(2) Berm, dike, and/or slope the loading/unloading area to prevent run-on of storm water and to prevent the run-off or loss of any spilled material from the area.

(3) Large loading areas frequently are not curbed along the shoreline. As a result, storm water passes directly off the paved surface into surface water. Place curbs along the edge or slope the edge such that the storm water can flow to an internal storm drain system that leads to an approved treatment BMP.

(4) Pave and slope loading/unloading areas to prevent the pooling of water. The use of catch basins and drain lines within the interior of the paved area must be minimized as they will frequently be covered by material, or they should be placed in designated "alleyways" that are not covered by material, containers, or equipment.

(5) For the transfer of hazardous liquids in areas that cannot contain a catastrophic spill, consider installing an automatic shutoff system in case of unanticipated off-loading interruption (e.g., coupling break, hose rupture, overfill, etc.).

At Loading and Unloading Docks

(6) Install/maintain overhangs or door skirts that enclose the trailer end to prevent contact with rainwater.

(7) Design the loading/unloading area with berms, sloping, etc., to prevent the run-on of storm water.

(8) Retain on-site the necessary materials for rapid cleanup of spills.

At Tanker Truck Transfer Areas to Above/Below-ground Storage Tanks

(9) Pave the area on which the transfer takes place. If any transferred liquid, such as gasoline, is reactive with asphalt, pave the area with Portland cement.

(10) Slope, berm, or dike the transfer area to a dead-end sump, spill containment sump, a spill control (SC) oil/water separator, or other spill control device. The minimum spill retention time should be 15 minutes at the greater flow rate of the highest fuel dispenser nozzle through-put rate, or the peak flow rate of the 6-month, 24-hour storm event over the surface of the containment pad, whichever is greater. The volume of the spill containment sump should be a minimum of 50 gallons with an adequate grit sedimentation volume.

F. BMPs for Maintenance and Repair of Vehicles and Equipment

a) *Description of Pollutant Sources*: Pollutant sources include parts/vehicle cleaning, spills/leaks of fuel and other liquids, replacement of liquids, outdoor storage of batteries/liquids/parts, and vehicle parking.

b) *Pollutant Control Approach*: Control of leaks and spills of fluids using good housekeeping and cover and containment BMPs.

Operational BMPs

(11) Inspect for leaks all incoming vehicles, parts, and equipment stored temporarily outside.

(12) Use drip pans or containers under parts or vehicles that drip or those are likely to drip liquids, such as during dismantling of liquid containing parts or removal or transfer of liquids.

(13) Remove batteries and liquids from vehicles and equipment in designated areas designed to prevent storm water contamination. Store cracked batteries in a covered non-leaking secondary containment system.

(14) Empty oil and fuel filters before disposal. Provide for proper disposal of waste oil and fuel.

(15) Do not pour/convey washwater, liquid waste, or other pollutant into storm drains or to surface water. Do not hose down work areas to storm drains. Use dry methods for cleaning leaked fluids. Check with the local sanitary sewer authority for approval to convey to a sanitary sewer.

(16) Do not connect maintenance and repair shop floor drains to storm drains or to surface water.

(17) Consider storing damaged vehicles inside a building or other covered containment until all liquids are removed. Remove liquids from vehicles retired for scrap.

(18) Consider cleaning parts with aqueous detergent based solutions or non-chlorinated solvents such as kerosene or high flash mineral spirits, and/or use wire brushing or sand blasting whenever practicable. Avoid using toxic liquid cleaners such as methylene chloride, 1,1,1trichloroethane, trichloroethylene, or similar chlorinated solvents. Choose cleaning agents that can be recycled.

(19) Inspect all BMPs regularly, particularly after a significant storm. Identify and correct deficiencies to ensure that the BMPs are functioning as intended.

Structural Source Control BMPs

(20) Conduct all maintenance and repair of vehicles and equipment in a building, or other covered impervious containment area that is sloped to prevent run-on of uncontaminated storm water and run-off of contaminated storm water.

(21) Park large mobile equipment, such as log stackers, in a designated contained area.

(22) Treatment BMPs, if required.

(23) Contaminated storm water run-off from vehicle staging and maintenance areas may be conveyed to a sanitary sewer, if allowed by the local sewer authority, or to an API or CP oil and water separator followed by a basic treatment BMP, media filtration systems, or other equivalent oil treatment system.

G. BMPs for Maintenance of Storm Water Drainage and Treatment Systems

a) *Description of Pollutant Sources*: Facilities include roadside catch basins, conveyance systems, detention facilities such as ponds and vaults, oil and water separators, biofilters, settling basins, infiltration systems, and all other types of storm water treatment systems. Oil and grease, hydrocarbons, debris, heavy metals, sediments, and contaminated water are found in catch basins, oil and water separators, settling basins, etc.

b) *Pollutant Control Approach.*: Provide maintenance and cleaning of debris, sediments, and oil from storm water collection, conveyance, and treatment systems to obtain proper operation.

Operational BMPs: Maintain storm water treatment facilities according to the following BMPs:

(1) Inspect and clean treatment BMPs, conveyance systems, and catch basins as needed, and determine whether improvements in O&M are needed.

(2) Promptly repair any deterioration threatening the structural integrity of the facilities. These include replacement of clean-out gates, catch basin lids, and rock in emergency spillways.

(3) Ensure that storm sewer capacities are not exceeded and that heavy sediment discharges to the sewer system are prevented.

(4) Regularly remove debris and sludge from BMPs used for peak-rate control, treatment, etc., and discharge to a sanitary sewer if approved by the sewer authority or truck to a local or state government approved disposal site.

(5) Post warning signs; "Dump No Waste - Drains to Ground Water," "Streams," "Lakes," or emboss on or adjacent to all storm drain inlets where practical.

H. BMPs for Mobile Fueling of Vehicles and Heavy Equipment

a) *Pollutant Control Approach*: Proper training of the fueling operator and the use of spill/drip control and reliable fuel transfer equipment with backup shutoff valving are typically needed.
Note that some local fire departments may have restrictions on mobile fueling practices.

Operational BMPs

(1) Ensure that all mobile fueling operations are approved by the local fire department and comply with local and California State fire codes.

(2) In fueling locations that are in close proximity to sensitive aquifers, designated wetlands, wetland buffers, or other waters of the state, approval by local jurisdictions is necessary to ensure compliance with additional local requirements.

(3) Ensure the compliance with all 49 CFR 178 requirements for DOT 406 cargo tanker. Documentation from a Department of Transportation (DOT) Registered Inspector shall be proof of compliance.

(4) Ensure the presence and the constant observation/monitoring of the driver/operator at the fuel transfer location at all times during fuel transfer and ensure that the following procedures are implemented at the fuel transfer locations:

(i) Locating the point of fueling at least 25 feet from the nearest storm drain or inside an impervious containment with a volumetric holding capacity equal to or greater than 110 percent of the fueling tank volume, or covering the storm drain to ensure no inflow of spilled or leaked fuel. Storm drains that convey the inflow to a spill control separator approved by the local jurisdiction and the fire department need not be covered. Potential spill/leak conveyance surfaces must be impervious and in good repair.

(ii) Placing a drip pan or an absorbent pad under each fueling location prior to and during all dispensing operations. The pan (must be liquid tight) and the absorbent pad must have a capacity of 5 gallons. Spills retained in the drip pan or the pad need not be reported.

(iii) The handling and operation of fuel transfer hoses and nozzle, drip panes, and absorbent pads as needed to prevent spills/leaks of fuel from reaching the ground, storm drains, and receiving waters.

(iv) Not extending the fueling hoses across a traffic lane without fluorescent traffic cones, or equivalent devices, conspicuously placed so that all traffic is blocked from crossing the fuel hose.

(v) Removing the fill nozzle and cessation of filling when the automatic shut-off valve engages. Do not allow automatic shutoff fueling nozzles to be locked in the open position.

(vi) Not "topping off' the fuel receiving equipment.

(vii) Provide the driver/operator of the fueling vehicle with:

1. Adequate flashlights or other mobile lighting to view fill openings with poor accessibility. Consult with local fire department for additional lighting requirements.

2. Two-way communication with his/her home base.

3. Train the driver/operator annually in spill prevention and cleanup measures and emergency procedures. Make all employees aware of the significant liability associated with fuel spills.

4. The fueling operating procedures should be properly signed and dated by the responsible manager, distributed to the operators, retained in the organization files, and made available in the event an authorized government agency requests a review.

5. Ensure that the local fire department (911) and the Regional Board are immediately notified in the event of any spill entering the surface or ground waters. Establish a "call down list" to ensure the rapid and proper notification of management and government officials should any significant amount of product be lost offsite. Keep the list in a protected but readily accessible location in the mobile fueling truck. The "call down list" should also pre-identify spill response contractors available in the area to ensure the rapid removal of significant product spillage into the environment.

6. Maintain in all fueling vehicles a minimum of the following spill cleanup materials that are readily available for use:

   a. Non-water absorbents capable of absorbing 15 gallons of diesel fuel.
   b. A storm drain plug or cover kit.
   c. A non-water absorbent containment boom of a minimum 10 feet in length with a 12 gallon absorbent capacity.
   d. A non-metallic shovel.
   e. Two, five-gallon buckets with lids.
   f. Maintain and replace equipment on fueling vehicles, particularly hoses and nozzles, at established intervals to prevent failures.

b) *Structural Source Control BMP*: Automatic fuel transfer shut-off nozzles; and, an adequate lighting system at the filling point.

I. BMPs for Painting/Finishing/Coating of Vehicles/Starting Gate/Finishing Post/Track Fence/ Buildings/ Equipment

a) *Description of Pollutant Sources:* Surface preparation and the application of paints, finishes and/or coatings to vehicles, buildings, and/or equipment outdoors can be

sources of pollutants. Potential pollutants include organic compounds, oils and greases, heavy metals, and suspended solids.

b) *Pollutant Control Approach*: Cover and contain painting and sanding operations and apply good housekeeping and preventive maintenance practices to prevent the contamination of storm water with painting oversprays and grit from sanding.

Operational BMPs

(1) Train employees in the careful application of paints, finishes, and coatings to reduce misuse and over spray. Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly clean and temporarily store collected debris daily.

(2) Do not conduct spraying, blasting, or sanding activities over open water or where wind may blow paint into water.

(3) Wipe up spills with rags and other absorbent materials immediately. On dock areas sweep rather than hose down debris. If hosing is conducted, collect any hose water generated and convey to appropriate treatment and disposal. Do not hose down the area to a storm drain or receiving water or conveyance ditch to receiving water.

(4) Use a storm drain cover, filter fabric, or similarly effective run-off control device if dust, grit, washwater, or other pollutants may escape the work area and enter a catch basin. The containment device(s) must be in place at the beginning of the workday. Collect contaminated run-off and solids and properly dispose of such wastes before removing the containment device(s) at the end of the workday.

(5) Use a ground cloth, pail, drum, drip pan, tarpaulin, or other protective device for activities such as paint mixing and tool cleaning outside or where spills can contaminate storm water.

(6) Properly dispose of all wastes and prevent all uncontrolled releases to the air, ground, or water.

(7) Clean brushes and tools covered with non-water-based paints, finishes, or other materials in a manner that allows collection of used solvents (e.g., paint thinner, turpentine, xylol) for recycling or proper disposal.

(8) Store toxic materials under cover (tarp, etc.) during precipitation events and when not in use to prevent contact with storm water.

c) *Structural Source Control BMPs*: Enclose and/or contain all work while using a spray gun or conducting sand blasting and in compliance with applicable air pollution control and OSHA requirements. Do not conduct outside spraying, grit blasting, or sanding activities during windy conditions which render containment ineffective.

J. BMPs for Storage of Liquid, Food Waste, or Dangerous Wastes in Containers

a) *Description of Pollutant Sources*: Steel and plastic drums with volumetric capacities of 55 gallons or less are typically used at industrial facilities for container storage of liquids and powders. The BMPs specified below apply to container(s) located outside a building used for temporary storage of accumulated food wastes, vegetable or animal grease, used oil, liquid feedstock or cleaning chemical, or dangerous wastes (liquid or solid) unless the business is permitted by regulatory agencies to store the wastes. Leaks and spills of pollutant materials during handling and storage are the primary sources of pollutants. Oil and grease, acid/alkali pH, BOD, COD are potential pollutant constituents.

b) *Pollutant Control Approach*: Store containers in impervious containment under a roof or other appropriate cover, or in a building. For roll-containers (for example, dumpsters) that are picked up directly by the collection truck, a filet can be placed on both sides of the curb to facilitate moving the dumpster. If a storage area is to be used on site for less than 30 days, a portable temporary secondary system can be used in lieu of a permanent system as described above.

Operational BMPs

(1) Place tight-fitting lids on all containers.

(2) Place drip pans beneath all mounted container taps and at all potential drip and spill locations during filling and unloading of containers.

(3) Inspect container storage areas regularly for corrosion, structural failure, spills, leaks, overfills, and failure of piping systems. Check containers daily for leaks/spills. Replace containers and replace and tighten bungs in drums as needed.

(4) Businesses accumulating dangerous wastes that do not contain free liquids need only to store these wastes in a sloped designated area with the containers elevated or otherwise protected from storm water run-on.

(5) Drums stored in an area where unauthorized persons may gain access must be secured in a manner that prevents accidental spillage, pilferage, or any unauthorized use.

(6) If the material is a dangerous waste, the business owner must comply with any additional regulatory agency requirements.

(7) Storage of reactive, ignitable, or flammable liquids must comply with the Uniform Fire Code.

(8) Cover dumpsters, or keep them under cover such as a lean-to, to prevent the entry of storm water. Replace or repair leaking garbage dumpsters.

(9) Drain dumpsters and/or dumpster pads to sanitary sewer. Keep dumpster lids closed. Install water proof liners.

Structural Source Control BMPs

(10) Keep containers with dangerous waste, food waste, or other potential pollutant liquids inside a building unless this is impracticable due to site constraints or Uniform Fire Code requirements.

(11) Store containers in a designated area, which is covered, bermed or diked, paved and impervious in order to contain leaks and spills. The secondary containment shall be sloped to drain into a dead-end sump for the collection of leaks and small spills.

(12) For liquid wastes, surround the containers with a dike. The dike must be of sufficient height to provide a volume of either 10 percent of the total enclosed container volume or 110 percent of the volume contained in the largest container, whichever is greater, or, if a single container, 110 percent of the volume of that container.

(13) Place containers mounted for direct removal of a liquid chemical for use by employees inside a containment area as described above. Use a drip pan during liquid transfer

Treatment BMP, if required

(14) For contaminated storm water in the containment area, connect the sump outlet to a sanitary sewer, if approved by the local sewer authority, or to appropriate treatment such as an API or CP oil/water separator, catch basin filter, or other appropriate system. Equip the sump outlet with a normally closed valve to prevent the release of spilled or leaked liquids, especially flammables (compliance with fire codes), and dangerous liquids. This valve may be opened only for the conveyance of contaminated storm water to treatment.

(15) Another option for discharge of contaminated storm water is to pump it from a dead-end sump or catchment to a tank truck or other appropriate vehicle for off-site treatment and/or disposal.

K. <u>BMPs for Washing and Steam Cleaning Vehicles/Equipment Building Structures</u>

a) *<u>Description of Pollutant Sources</u>*: Washwater from cleaning activities can contain oil and grease, suspended solids, heavy metals, soluble organics, soaps, and detergents that can contaminate storm water.

b) *<u>Pollutant Control Approach</u>*: The preferred approach to separate the uncontaminated storm water from the pollutant sources is to cover and/or contain the cleaning activity, or conduct the activity inside a building. Washwater must be conveyed to industrial treatment or a sanitary sewer after approval by the local

sewer authority; temporarily stored before proper disposal; or recycled, with no discharge to the ground, to a storm drain, or to surface water.

Structural Source Control BMPs

(1) Conduct vehicle equipment washing in a building or under a roof, with washwater draining to industrial treatment facility or a sanitary sewer, if approved by the local sewer authority,

(2) Conduct outside washing operation in a designated wash area as follows:

(i) Conduct washing on a paved spill containment pad to prevent the run-on of storm water from adjacent areas. Slope the spill containment area so that washwater is collected in a containment pad drain system with perimeter drains, trench drains or catchment drains. Size the containment pad to extend out a minimum of four feet on all sides of the vehicles and/or equipment being washed.

(ii) Convey the washwater to a sump (like a grit separator) and then to a sanitary sewer (if allowed by the local Sewer Authority), or industrial wastewater treatment, or recycle system. An NPDES permit may be required for any washwater discharge to a storm drain or receiving water after treatment. Contact the Regional Board office for NPDES Permit requirements.

(iii) For discharge to a sanitary sewer, the containment sump must have a positive control outlet valve for spill control with live containment volume and oil/water separation. Size the minimum live storage volume to contain the maximum expected daily washwater flow plus the sludge storage volume below the outlet pipe. The outlet valve will be shut during the washing cycle to collect the washwater in the sump. The valve should remain shut for at least two hours following the washing operation to allow the oil and solids to separate before discharge to a sanitary sewer. The inlet valve could be closed when washing is not occurring, thereby preventing the entry of uncontaminated storm water into the pretreatment/ treatment system. The storm water can then drain into the conveyance discharge system outside of the wash pad (essentially bypassing the washwater treatment/conveyance system). Post signs to inform operating personnel of the operation and purpose of the valve. Clean the concrete pad thoroughly until there is no foam or visible sheen in the washwater prior to closing the inlet valve and allowing uncontaminated storm water to bypass (overflow and drain off) the pad.

(iv) For uncovered wash pads, the positive control outlet valve may be manually operated, but an automatic pneumatic or electric valve system is preferable. The valve may be on a timer circuit to be opened on completion of a wash cycle. The timer would then close the valve after the sump or separator is drained

Because soluble/emulsifiable detergents can be used in the wash medium, the selection of soaps and detergents and treatment BMPs should be considered

carefully. *Oil/water separators are ineffective in removing emulsified or water soluble detergent.*